

MAR. 28. 1911

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Subdivisional  
BOOK M

2591

BOOK 2591

# FIELD NOTES

OF THE SURVEY OF THE

Subdivision lines of Township No. 29 N.

Range No. 17 E.

Of the Gila and Salt River Base and Meridian,

in the Territory of Arizona

EXECUTED  
AS SURVEYED BY

Sidney E. Blunt, United States <sup>Examiner of Surveys</sup> ~~Deputy Surveyor~~

Special Instructions from the Commissioner of the General Land Office  
Under ~~his Contract No. \_\_\_\_\_~~, dated October 2<sup>nd</sup> 1907 and May 15<sup>th</sup> 1908

Survey commenced December 25<sup>th</sup>, 1908

Survey completed January 11<sup>th</sup>, 1909

NAMES AND DUTIES OF ASSISTANTS.

<u>Van L. White</u>	<u>Compassman</u>
<u>Rolph P. Westraud</u>	<u>Chairman</u>
<u>Jay E. Jellick</u>	<u>Chairman</u>
<u>Chas L. Shumway</u>	<u>Woundman</u>
<u>Amed L. Warner</u>	<u>Woundman</u>
<u>Lafayette Jennings</u>	<u>Cupman</u>
<u>Harvey Lake May</u>	<u>Flagman</u>

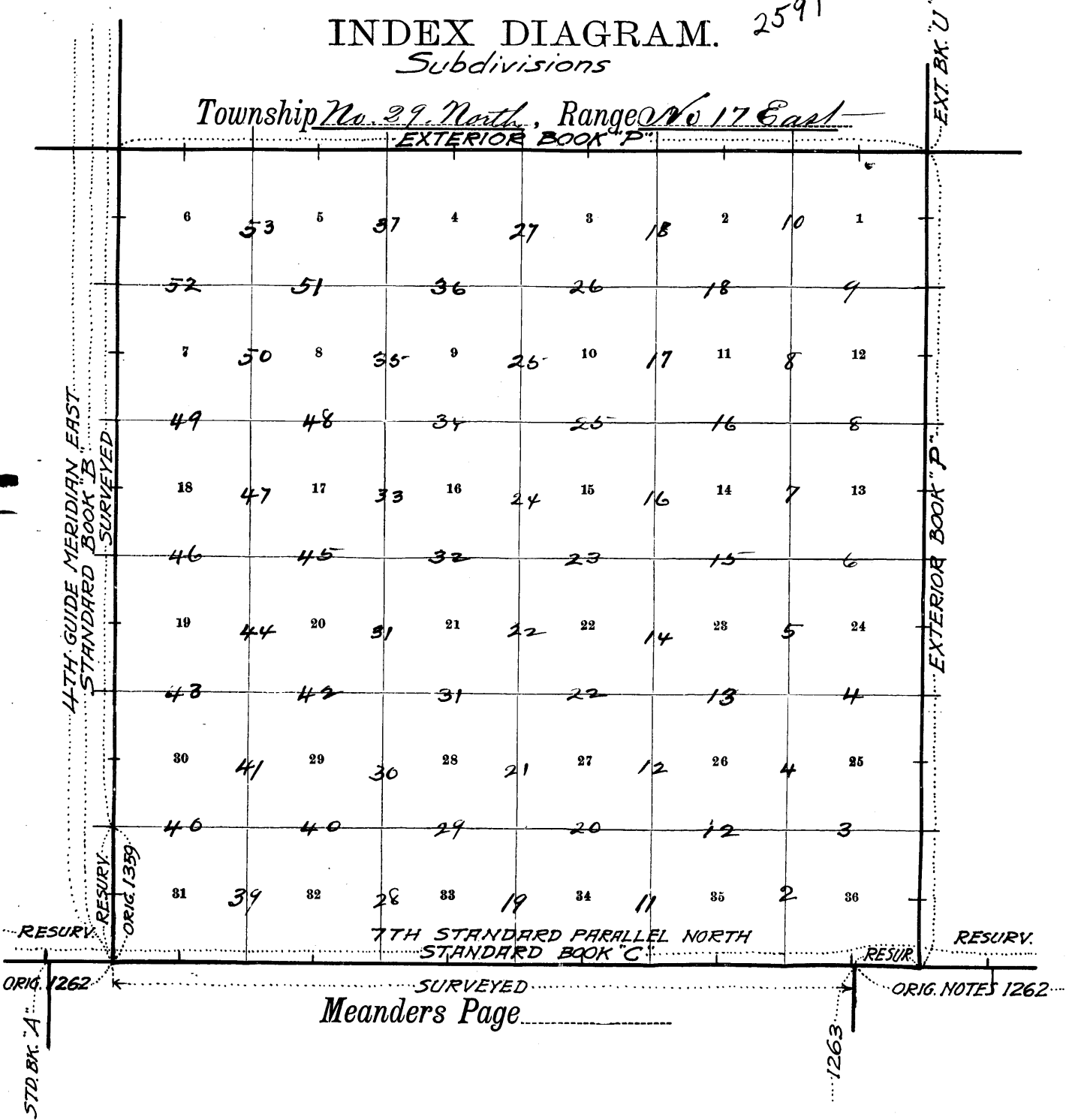
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BOOK 2591

# INDEX DIAGRAM. 2591

Subdivisions

Township No. 29 North, Range No. 17 East



PRELIMINARY OATHS OF ASSISTANTS.

(Same applies to Subdivisional Books N, O, P, Q, R, S, T, U and V.)

We, Ralph P. Westraud, Jay E. Jellick, Arthur A. Beard, Lafayette Jennings <sup>and Chas. L. Shumway</sup>  
do solemnly swear that we will well and faithfully execute the duties of chainmen; that we will level the chain upon even and uneven ground, and plumb the tally pins, either by sticking or dropping the same; that we will report the true distances to all notable objects, and the true lengths of all lines that we assist in measuring, to the best of our skill and ability, and in accordance with instructions given us, in the survey <sup>or survey and resurvey of</sup>

The Subdivision lines of Twp. 29 and 30 North of Range No. 15, 16, 17, 18 and 19 East of the G. & S. R. B. & M., Arizona.

Arthur A. Beard, and Ralph P. Westraud, Chainmen.

Lafayette Jennings, Chas. L. Shumway, Jay E. Jellick, Chainmen.

Subscribed and sworn to before me this 21st  
day of December, 1908



Sidney E. Blout  
U.S. Examiner of Surveys

We, Charles L. Shumway and Fred L. Warner  
do solemnly swear that we will well and truly perform the duties of moundmen in the establishment <sup>or re-establishment</sup> of corners, according to the instructions given us, to the best of our skill and ability, in the survey <sup>or survey and resurvey of</sup>

The Subdivision lines of Twp. 29 and 30 North of Range No. 15, 16, 17, 18 and 19 East of the G. & S. R. B. & M., Arizona.

Chas. L. Shumway, Moundman.

Fred L. Warner, Moundman.

Subscribed and sworn to before me this 21st  
day of December, 1908



Sidney E. Blout  
U.S. Examiner of Surveys

We, Lafayette Jennings <sup>Arthur A. Beard</sup> and Chas. L. Shumway  
do solemnly swear that we will well and truly perform the duties of axmen in the establishment <sup>or re-establishment</sup> of corners and other duties, according to instructions given us, to the best of our skill and ability, in the survey <sup>or survey and resurvey of</sup>

The Subdivision lines of Twp. 29 and 30 N. Range 15, 16, 17, 18 and 19 East of the G. & S. R. B. & M., Arizona.

Arthur A. Beard Axman. Lafayette Jennings, Axman.

Chas. L. Shumway, Axman.

Subscribed and sworn to before me this 21st  
day of December, 1908



Sidney E. Blout  
U.S. Examiner of Surveys

We, Harvey Lake Nay and Jay E. Jellick, do solemnly swear that we will well and truly perform the duties of flagmen according to instructions given <sup>us</sup> to the best of <sup>our</sup> skill and ability, in the survey <sup>or survey and resurvey of</sup>

The Subdivision lines of Twp. 29 and 30 N. Range 15, 16, 17, 18 and 19 East of the G. & S. R. B. & M., Arizona.

Jay E. Jellick Flagman. Harvey Lake Nay, Flagman.

Subscribed and sworn to before me this 21st  
day of December, 1908



Sidney E. Blout  
U.S. Examiner of Surveys

Chains

Survey commenced Dec. 25<sup>th</sup> 1908. and executed with a W<sup>and</sup> S. E. Gurley Engineers Transit No. with a Burt-Solar attachment. The horizontal limb is provided with one double vernier, reading to single minutes of arc. The verniers of the latitude and declination arcs reading to 30' of arc.

I examined the adjustments of the transit and correct the level and collimation errors. then to test the solar apparatus by comparing its indications resulting from solar observations made during am. and pm. hours with a meridian determined by observation on Polaris. I proceed as follows.

At my camp located near the cor. of sec. 15, 16, 21 and 22 Twp. 29 N. R. 17 E., Latitude  $35^{\circ}54'N$ , Longitude  $110^{\circ}31\frac{1}{2}'W$ ; I set off  $35^{\circ}54'N$  on the lat. arc,  $23^{\circ}21\frac{1}{2}'S$  on the decl. arc, and at  $3^h 00^m$  p.m. level determined a meridian with the solar and mark a point thereof on a stone set in the ground 5 chs N. of my instrument.

At  $8^h 49^m$  pm level I observed Polaris in accordance with instructions in the Manual and mark the line thus determined by a tack driven in a stake set firmly in the ground 5 chs. N of the instrument.

Astronomical time of observation 1908 Dec 25 <sup>th</sup>		h	m
		8	49
Astron. time U.C. Paris Dec 15 <sup>th</sup> 1908	$7^h 50^m$		
Reduction to Dec 25 <sup>th</sup> Subtract	$39.5'$		
Astron. time U.C. Paris Dec 25 <sup>th</sup> , 1908	$7^h 10.5'$ Subtract	7	10.5'
Hour angle of Paris at observation and time argument for Table VII		1	38.5'
Azimuth of Paris at observation		$0^{\circ} 37' W.$	

December 25<sup>th</sup> 1908

December 26<sup>th</sup> 1908 At  $7^h 00^m$  am <sup>l.m.t.</sup> I lay off the azimuth of Paris  $0^{\circ} 37'$  to the east and mark the meridian thus determined by a cross cut on the stone already set 5 chs. N of my instrument on which the meridian falls 0.5 ins east of the mark determined by the solar

At  $8^h 00^m$  am. l.m.t. I set off  $35^{\circ}54'N$  on the lat. arc and  $23^{\circ}18'S$  on the decl. arc and determined a meridian with the solar and mark a point thereof by a cross

Subdivision of T<sub>29</sub> N. R<sub>17</sub> E

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cut on the stone already set 5 chs N. of the instrument; this mark falls 6 in E of the mark established by the Polaris observation.

The solar apparatus by fore and am. observations defines positions for meridians respectively about 0' 26" West and 0' 31" E of the meridian established by the Polaris observation; therefore I conclude that the adjustments of the instrument are satisfactory. I begin at the stand cor. of Secs 35 and 36, on S. side of the <sup>recently estab. by me and</sup> sp. described in Standard Book C. Latitude 35° 51' 28" N., Longitude 110° 29' W.

At 9<sup>h</sup> 00<sup>m</sup> am. set decl. of 35° 51' 1/2" N. on the lat arc and 23° 20' S. on the decl arc and determine a meridian with the solar at this cor.

Thence I run

N 0° 01' W. 1/4 ch. sec 35 and 36

across S.W. slopes on hilly sandy land through scattering sage brush and bunch grass.

- 8.50 Top of low sand ridge bears N.E. and S.W. dir.
- 16.50 Dry ravine course S.W. acc. Enter cedar timber bears N.W. and S.E.
- 24.00 Foot of sand stone bluffs bears N.W. and S.E. across abruptly
- 33.00 Top of bluffs 60 ft high bears N.W. and S.E. acc. gradually
- 40.00 Set an iron post 3 ft long 7 in in diam and 26 ins in the ground for 1/4 sec. cor marked on base Cop T 29 N 335 on W half and S 36 on E half. From which
- A cedar 8 ins in diam. bears S 50 3/4° E 216 lbs. dist marked 1/4 S 36 B.T.
- A pinion pine 6 ins in diam. bears S 29 1/2° W 192 lbs. dist marked 1/4 S 35 B.T.
- 48.00 Top of mesa bears E and W. bears hilly land bears E and W. Enter rolling sandy land bears E. and W.
- 80.00 Set an iron post 3 ft long 2 ins in diam. 24 ins. in the ground for cor. of secs 25, 26, 35 and 36. marked on base Cop T 29 N S 26 in N.W. R 17 E S 25 in N.E. S 36 in S.E. and S 35 in S.W. quadrant. From which
- A cedar 5 ins in diam. bears N 81 1/2° E 112 lbs. dist, marked T 29 N. R 17 E S 25 B.T.
- A pinion pine 6 ins in diam. bears S 24 1/4° E 148 lbs. dist marked T 29 N R 17 E. S 36 B.T.
- A cedar 7 ins in diam. bears S 72 1/4° W 148 lbs. dist, marked T 29 N. R 17 E S 35 B.T.
- A cedar 5 ins in diam bears N. 21 1/2° W 114 lbs. dist, marked

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T29N. R17E S26 BT.  
 Land rolling hilly and broken.  
 Soil sandy and stony 3<sup>rd</sup> and 4<sup>th</sup> rate.  
 Timber piñon pine and Cedar.

S89°59'E on a random line bet. sec. 25 and 36.

40.00 Set temp. ¼ sec. cor.

80.24 Intersect E. side of Np. 123 lks. N. of the W.C. to Cor. of sec. 25 30 31 and 36, recently estab. by me and described in Exterior Book "P." set 1.25 chs. S. of true cor. point. Thence I run, from true cor. point, in ravine, course SE.

West, on a true line, bet. sec. 25 and 36.

Descend W slope over sandy land through sage brush and bunch grass

140 Dry ravine course S.E. asc. E slope E. side hilly land bet. sec. 25 and 36.

18.70 Top of sand ridge bet. sec. 25 and 36.

19.30 Dry ravine course N.E. asc.

35.00 Enter scattering cedar and piñon pine timber bet. sec. 25 and 36.

37.80 Top of sand ridge bet. sec. 25 and 36.

39.30 Dry ravine course S.W. asc. S.E. slope.

40.12 Set an iron post 3 ft. long in a diam. 26 ins in the ground for ¼ sec. cor. marked on base of ¼ S 25 on N half and 336 on S half, from which

A cedar 12 ins in diam bet. sec. 25 and 36 130 lks. dist marked ¼ S 25 B.T.

A cedar 6 ins. in diam. bet. sec. 25 and 36 122 lks. dist marked ¼ S 36 B.T.

NOTE At this cor. I set off 23°20½' S. on the decl. arc and at noon. observe the sun on the meridian the resulting latitude being 35°52' N.

56.00 Foot of sand stone bluff 50 ft. high bet. sec. 25 and 36. ascend abruptly.

58.00 Top of bluff. bet. sec. 25 and 36. leave hilly land bet. sec. 25 and 36. Enter rolling sandy mesa land bet. sec. 25 and 36.

80.24 The cor. of sec. 25, 26, 35 and 36, heretofore described.

Land rolling hilly and broken,  
 Soil sandy and stony 3<sup>rd</sup> and 4<sup>th</sup> rate.  
 Timber piñon pine and Cedar.

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- No. 01 W bet. secs 25 and 26  
 Descend N.E. slope over rolling sandy mesa land. through scattering pinion pine and Cedar timber and bush grass undergrowth.
- 39.50 Dry ravine course S.E.
- 40.00 Set an iron post. 3ft long 1 in in diam. 26 in in the ground for  $\frac{1}{4}$  sec. cor marked on brass cap  $\frac{1}{4}$  S 26 on W half and S 25 on E half. From which  
 A cedar 5 in. in diam. bears  $N 30^{\circ} W 70$  lbs. dist marked  $\frac{1}{4}$  S 26 B.T.  
 A cedar 8 in. in diam. bears  $S 31^{\circ} 30' E 103$  lbs. dist marked  $\frac{1}{4}$  S 25 B.T.
- 50.00 Leave timber bears N.E. and S.W.
- 54.00 Top of low ridged bears N.E. and S.W. leave rolling land bears N.E. and S.W. enter level land bears N.E. and S.W.
- 80.00 Set a cedar post. 3ft long 4 in <sup>with marked stone</sup> 24 in in the ground. for cor. of secs. 23, 24, 25 and 26. marked, T 29 N. S 24 on N.E. R17 E S 25 on S.E. S 26 on S.W. and S 23 on N.W. faces, with 1 notch on E and 2 notches on S edges.  
 Dig pits 18x18x12 in in each sec. 5  $\frac{1}{2}$  ft. dist and raise a mound of earth 4 ft. base 2 ft high. W of cor.  
 Land level and rolling.  
 Soil sandy 2<sup>nd</sup> and 3<sup>rd</sup> rate.  
 Timber pinion pine and Cedar.
- 
- 40.00 Set on a random line bet. secs 24 and 25  
 Set temp  $\frac{1}{4}$  sec. cor.
- 80.22 Intersect E. side of Twp. 5 lks. S of the cor. of secs. 19, 24, 25 and 30, recently estab. by me and described in "Extensive Book P" Thence Drive  
 $S 89^{\circ} 58' W$  on a true line bet. secs. 24 and 25  
 Descend N.W. slope over hilly land.
- 1.50 Dry sand wash. 150 lbs. wide course S.W. around E. slope over sandy land.
- 10.90 Road bears N and S. leads to Pita coal ariz
- 27.00 Begin abrupt ascent over stony E slope.
- 31.80 Top of abrupt ascent. leave hilly land bears N.E. and S.W. enter rolling land bears N.E. and S.W.
- 32.00 Enter pinion pine and Cedar timber bears N.E. and S.W.



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40.11 Set an iron post 3 ft. long, 1 in in diam. 26 ins in the ground for  $\frac{1}{4}$  sec. cor. marked on base cap.  $\frac{1}{4}$  S 24 on N half and S 25 on S half. from which.  
 A piñon pine 9 ins. in diam base N  $1\frac{1}{2}$ ° W 181 lbs. dist. marked  $\frac{1}{4}$  S 24 B.T.  
 A piñon pine 10 ins. in diam base S 20° E 62 lbs. dist. marked  $\frac{1}{4}$  S 25 B.T.

48.00 Road timber base N.E. and S.W.

80.22 The cor. of secs. 23, 24, 25 and 26, heretofore described.  
 Land rolling and hilly.  
 Soil sandy and stony 3<sup>rd</sup> and 4<sup>th</sup> rate.  
 Numerous piñon pine and cedars.

December 26<sup>th</sup> 1908

December 28<sup>th</sup> 1908 Ab. 8<sup>h</sup> 00<sup>m</sup> a.m. Incl. S. of 35° 53' N. on the base arc 23° 13' S on the decl. arc and determined a meridian with the solar at the cor. of secs. 23, 24, 25 and 26, heretofore described,

Thence S run

N 0° 01' W bet. secs. 23 and 24

Over rolling sandy land, through sage and greasewood brush and bunch grass.

20.00 Top of low ridge base E. and W. enter piñon pine and cedar timber (scattered), base E and W. desc gradually over N. slope of ridge.

40.00 Set an iron post 3 ft. long, 1 in in diam. 26 ins in the ground for  $\frac{1}{4}$  sec. cor. marked on base cap.  $\frac{1}{4}$  S 23 on W half and S 24 on E half. from which.

A cedar 20 ins in diam base N 26 $\frac{3}{4}$ ° E 78 lbs. dist. marked  $\frac{1}{4}$  S 24 B.T.

A cedar 6 ins in diam. base N 6 $\frac{1}{2}$ ° W 184 lbs. dist. marked  $\frac{1}{4}$  S 23 B.T.

54.50 Dry ranuel course E. asc. gently.

69.00 Road base N.E. and S.W. used to haul wood to Pinal Ariz. over.

80.00 Set a cedar post 3 ft. long 4 ins sq. 24 ins. in the ground for cor. of secs. 13, 14, 23 and 24. marked. T 29 N. S 13 on N.E. R 17 E S 24 on S.E. S 23 on S.W. and S 14 on N.W. faces, with 1 notch on E and 3 notches on S. edges from which.

A cedar 6 ins. in diam base N 14 $\frac{1}{2}$ ° E 85 lbs. dist

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Chain

marked T<sub>29</sub>N. R<sub>17</sub>E S<sub>13</sub> B.T.A cedar 8 ins. in diam. bear S<sub>10</sub>° E 237 lbs. dist marked  
T<sub>29</sub>N R<sub>17</sub>E. S<sub>24</sub> B.T.A cedar 8 ins in diam bear S<sub>35</sub><sup>1</sup>/<sub>4</sub>° W 267 lbs. dist. marked  
T<sub>29</sub>N R<sub>17</sub>E S<sub>23</sub> B.T.A cedar 7 ins. in diam bear N<sub>39</sub>° W 187 lbs. dist  
marked T<sub>29</sub>N. R<sub>17</sub>E. S<sub>14</sub> B.T.

Sand rolling.

Soil sandy 3<sup>rd</sup> rate.

Timber pine, oak, pine and cedar.

N<sub>89</sub>° 58' E on a random line bet. sec 13 and 2440.00 Set temp. <sup>1</sup>/<sub>4</sub> sec. cor80.22 Intersect E bdy. of T<sub>29</sub>N. at the cor. of sec. 13, 18, 19  
and 24, recently estab. by me and described in Exterior Book "P"  
Thence DriveS<sub>89</sub>° 58' W on a true line bet. sec. 13 and 24Ascend steeply over S.E. slope over hilly sandy and  
stony land through sage and greasewood bush, undergrowth  
and bunch grass.13.50 Top of rock ledge 25 ft. high. bear N. and S. ascend.  
abruptly. enter scattering cedar thickets bear N. and S.

23.00 Top of ridge bear N. and S. descend W. slope.

25.60 Rock ledge 5 ft. high bear N.W. and S.E.

29.00 Loose timber bear N.W. and S.E. on top of rock ledge  
15 ft. high bear N. and S.40.11 The point for the <sup>1</sup>/<sub>4</sub> sec. cor. falls in bottom of dry  
ravine course S. inevitable for the establishment  
of permanent cor. are. E slope of ridge41.11 Set an iron post 3 ft. long. 1 in. in diam. 26 ins in  
the ground for witness cor. to the <sup>1</sup>/<sub>4</sub> sec. cor. marked  
on brass cap. T<sub>29</sub>N. R<sub>17</sub>E S<sub>13</sub> on N. half. S<sub>24</sub> on  
S. half. W.C. <sup>1</sup>/<sub>4</sub> on E half.Dig pits 18 X 18 X 12 ins E and W. of post. 3 ft. dist and  
raise a mound of earth 3 <sup>1</sup>/<sub>2</sub> ft. base, 1 <sup>1</sup>/<sub>2</sub> ft. high N  
of cor.

49.00 Road bear N.W. and S.E. used as a wood road.

52.50 Top of ridge bear N.W. and S.E. desc.

55.00 Dry ravine course S.E. are. steeply

58.00 Sand stone ledge 10 ft. high bear N. and S. enter

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Chains

65.00 Cedar and prairie pine timber bears N and S.  
 bears hilly land bears N and S. enter rolling land.  
 bears N and S.  
 - 75.80 Wood road bears N.E. and S.W.  
 - 80.22 The Cor. of sec's. 13, 14, 23 and 24, heretofore described.  
 Land rolling and hilly  
 Soil sandy and stony 3<sup>rd</sup> rate.  
 Timber prairie pine and cedar.  
 NOTE At this cor. set off 23 1/2' S on the decl arc and on  
 12<sup>th</sup> 01 1/2<sup>m</sup> from. line. observe the sun on the meridian  
 and obtain on the lab. arc a reading of 35° 54' N,

No. 01' W. Sec. 13 and 14  
 Around S.E. slope over rolling sandy land covered with  
 bunch grass. through scattering prairie pine and  
 cedar timber.

24.00 Top of low ridge bears N.W. and S.E. thence over  
 rolling land.  
 28.50 Wood road bears N.W. and S.E.  
 40.00 Set an iron post 3 ft long 1 in. in diam. 26 ins. in  
 the ground for 1/4 sec. cor. marked on base cap 1/4 S 14  
 N.W. half and S 13 on E. half. from which.  
 A cedar 8 ins. in diam bears N 4 3/4° E 99 lbs. dist. marked  
 1/4 S 13 B.T.  
 A cedar 6 ins. in diam bears N 40 3/4° W. 187 lbs. dist.  
 marked 1/4 S 14 B.T.  
 44.50 Dry ravine course S.E. runs gently over SW slope.  
 80.00 Set an iron post 3 ft long 2 ins. in diam. 24 ins in  
 the ground for Cor. of sec's. 11, 12, 13 and 14 marked  
 on base cap T 29 N. S 11 in N.W. R 17 E S 12 in N.E. S 13 in  
 S.E. and S 14 in S.W. quadrants. from which.  
 A cedar 6 ins. in diam, bears N 66 3/4° E 78 lbs. dist marked  
 T 29 N, R 17 E S 12 B.T.  
 A cedar 6 ins. in diam bears S 50 1/2° E 48 lbs. dist, marked  
 T 29 N R 17 E S 13 B.T.  
 A prairie pine 8 ins in diam bears S 85 1/2° W 98 lbs. dist  
 marked T 29 N R 17 E S 14 B.T.  
 A cedar 12 ins in diam. bears N 14 3/4° W 18 lbs. dist.  
 marked T 29 N. R 17 E S. 11 B.T.  
 Land rolling.

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Soil sandy 3<sup>rd</sup> rate  
 Timber prairie pine and cedar.

- 40.00  $N 89^{\circ} 58' E$  on a random line bet. sec. 12 and 13  
 Set temp.  $\frac{1}{4}$  sec. cor.
- 80.20 Intersect E. bdy of Twp. at the cor. of sec. 7, 12, 13 and  
 18, recently estab. by me and described in Exterior Book "P."  
 Thence I run  
 $S 89^{\circ} 58' W.$  on a true line bet. sec. 12 and 13.  
 Ascend S.E. over rolling sandy land through scattering  
 prairie pine and cedar timber and bunch grass.
- 13.00 Top of ascent on low ridge bet. N.E. and S.W. desc.
- 40.10 Set an iron post 3 ft. long, 1 in. in diam., 26 in. in the  
 ground for  $\frac{1}{4}$  sec. cor. marked on brass cap  $\frac{1}{4}$  S 12 on N.  
 half, and S 13 on S half from which  
 A prairie pine 7 in. in diam. bears  $N 35^{\circ} \frac{3}{4} W 16$  lbs. dist  
 marked  $\frac{1}{4}$  S 12 B.T.  
 A prairie pine 6 in. in diam. bears  $S 62^{\circ} \frac{1}{2} W 112$  lbs. dist,  
 marked  $\frac{1}{4}$  S 13 B.T.
- 62.50 This cor. is situated in bottom of depression which  
 bears N. and S. ascend E slope.
- 73.40 Top of low ridge bet. N. and S. desc. W slope.
- 75.00 Sandstone ledge 8 ft. high bet. N. and S.
- 80.20 Top of descent in depression bet. N. and S. descend  
 S. ascend gradually over S.E. slope.
- 80.20 The cor. of sec. 11, 12, 13 and 14, heretofore described.  
 Land rolling  
 Soil sandy and stony 3<sup>rd</sup> and 4<sup>th</sup> rate.  
 Timber prairie pine and cedar.

December 28<sup>th</sup> 1908

January 4<sup>th</sup> 1909. At 9<sup>h</sup> 05<sup>m</sup> am. L.M.C. & D. set off  $35^{\circ} 55' N.$   
 on the lat. arc.  $22^{\circ} 42 \frac{1}{2}' S$  on the decl. arc and determine  
 a meridian with the solar at the cor. of sec. 11, 12, 13  
 and 14, heretofore described,

Thence I run

$N 0^{\circ} 01' W.$  bet. sec. 11 and 12

Ascend gradually over S.E. slope of sand ridge  
 through scattering sage brush undergrowth and

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- Lunch ground.
- 11.00 Top of ridge head N.E. and S.W. clear timber head N.E. and S.W. desc. N.W. slope.
- 17.00 Wood road head N.E. and S.W.
- 39.50 Enter scattering pinion pine and cedar timber head N.W. and S.E.
- 40.00 Set an iron post 3ft. long, 1 in in diam. 26 ins. in the ground for  $\frac{1}{4}$  sec. cor. marked on brass cap  $\frac{1}{4}$  S 11 on W half and S 12 on E half. from which.
- A cedar 8 ins. in diam head N.  $9\frac{1}{4}^{\circ}$  E 114 lbs. dist. marked  $\frac{1}{4}$  S 12 B.T.
- A cedar 6 ins. in diam, head N  $83\frac{3}{4}^{\circ}$  W 169 lbs. dist marked  $\frac{1}{4}$  S 11 B.T.
- 67.00 Head timber head N.E. and S.W.
- 80.00 Set a cedar post 3ft long 4 ins sq. with marked stone 24 ins in the ground for cor. of secs 1, 2, 11 and 12 marked T 29 N S 1 on N.E. R 17 E S 12 on S.E. S 11 on S.W. and S 2 on N.W. face. with 1 notch on E and 5 notches on S. edges. Dig pits 18x18x12 ins. in each sec. 5  $\frac{1}{2}$  ft. dist and raise a mound of earth 4 ft. base, 2 ft. high. W of cor. Land rolling. Soil partly 2<sup>nd</sup> and 3<sup>rd</sup> rate. Timber pinion pine and cedar.
- 
- N  $89^{\circ} 58' E$  on a random line bet. sec. 1 and 12
- 40.00 Set top  $\frac{1}{4}$  sec. cor.
- 80.22 Intersect E ldy of Twp. 12 lbs. S of the cor. of secs. 1, 6, 7 and 12, recently estab. by me & described in Exterior Book "P". Thence I run
- S  $89^{\circ} 53' W$  on a true line bet. sec. 1 and 12
- Ascend N.E. slope of ridge over rolling sandy land. through scattering pinion pine and cedar timber.
- 7 00 Top of low ridge head N.E. and S.W. desc. gradually over N.W. slope
- 40.11 Set an iron post 3ft. long, 1 in in diam 26 ins in the ground for  $\frac{1}{4}$  sec. cor. marked on brass cap  $\frac{1}{4}$  S 1 on N half and S 12 on S half. from which.
- A cedar 6 ins. in diam, head N  $78^{\circ}$  W 147 lbs. dist marked  $\frac{1}{4}$  S 1 B.T.
- A cedar 8 ins. in diam, head S  $1\frac{1}{2}^{\circ}$  W 52 lbs. dist marked  $\frac{1}{4}$  S 12 B.T.

## Sub-division of Twp. 29. N. R. 17 E.

Chain

BOOK 2591

- 66.40 Dry ravine course N. asc. gently  
 75.00 Leave timber bears N.W. and S.E.  
 76.50 Top of ascent on low ridge bears N. and S. desc.  
 80.22 The cor. of secs 1, 2, 11 and 12, heretofore described.  
 Land rolling and hilly.  
 Soil sandy 2<sup>nd</sup> and 3<sup>rd</sup> rate.  
 Timber pinion pine and Cedar.
- 
- NO° 01' W on a random, line bet. secs, 1 and 2.  
 40.00 Set temp. ¼ Sec X  
 80.02 Intersect N. bdy. of Twp. 12 lks <sup>58.53 W.</sup> of the cor. of secs.  
 1, 2, 35 and 36; recently estab. by me & described in Exterior Book "P",  
 Thence I run  
 So 04' W. on a true line bet. secs 1 and 2.  
 Descend S.W. slope on sandy hilly land through  
 pinion pine and Cedar timber.
- 28.02 Wood road bears NE and S.W.  
 31.00 Same road bears NW and S.E.  
 33.00 Dry ravine 50 lks. wide course N.W. ascend  
 36.00 Leave timber bears N.W. and S.E.  
 40.02 Set an iron post 3 ft long 1 in in diam. 26 ins. in  
 the ground for ¼ sec. cor. marked on base Exp '45 2 on  
 W. half and 31 on E. half.  
 Dig pits 18x18x12 ins N and S. of post 3 ft. dist. and  
 raise a mound of earth 3 ½ ft. base, 1 ½ ft. high.  
 W. of cor.
- 55.00 Enter pinion pine and Cedar timber bears E. and W.  
 60.50 Dry ravine 100 lks. wide 6 ft. deep course N.W.  
 68.00 Leave timber bears N.E. and S.W.  
 80.02 The cor. of secs. 1, 2, 11 and 12, heretofore described.  
 Land hilly.  
 Soil sandy 3<sup>rd</sup> rate.  
 Timber pinion pine and Cedar.

NOTE

Clouds obscure the sun at noon today rendering an obser-  
 vation for latitude with the solar impossible -  
 Rain and snow began falling at 3<sup>h</sup> p.m., preventing  
 further field work on this day.

January 4<sup>th</sup> 1909

Chains

- December 29<sup>th</sup> 1908 Ab. 8<sup>h</sup> 30<sup>m</sup> am. l.m.t. I set off.  
 35951½' N. on the lat. arc. 23°10'S on the decl. arc and  
 determine a meridian with the solar alt. the stand.  
 Cor. of Secs. 34 and 35 on S. & N. of the T<sub>29</sub> recently estab-  
 lished by me and described in Standard Book "C"  
 June 1898.
- N 0° 01' W. lat. sec., 34 and 35.  
 Descend NW slope over hilly land through scattering ~~pine~~ <sup>pine</sup>  
 and cedar timber.
- 5.20 Dry ravine Course N.E. arc.  
 7.00 Top of ridge lead N.E. and S.W. desc.  
 9.00 Dry ravine Course N.E. arc.  
 11.50 Top of sand ridge lead N.E. and S.W. desc NW slope.  
 16.00 Dry ravine Course S.E. 35 ft. below top of ridge. arc.  
 32.00 Top of rocky ridge lead N.E. and S.W. descend gradually  
 over N.E. slope. Enter cedar timber bears N.E. and S.W.  
 40.00 Set an iron post 3 ft. long 1 in in diam 26 in. in  
 the ground for  $\frac{1}{4}$  sec. cor marked on lead cap.  
 $\frac{1}{4}$  S 34 on W. half and S 35 on E. half, from which  
 A cedar 4 in. in diam. lead N 70° E 128 lbs. dist.  
 marked  $\frac{1}{4}$  S 35 B.T.  
 A cedar 7 in. in diam. lead S 89° W 114 lbs. dist.  
 marked  $\frac{1}{4}$  S 34 B.T.
- 54.90 Dry ravine Course N.E. Leave timber lead E and W  
 60.00 Top of sand ridge lead N.E. and S.W. desc.  
 65.00 Dry ravine Course S.W. arc.  
 73.50 Road leads to Crabi Ariz lead N.W. and S.E.  
 75.00 Top of ridge lead N.E. and S.W. desc.  
 78.00 Dry ravine Course S.W. arc.  
 80.00 Set an iron post 3 ft. long 2 in in diam. 24 in  
 in the ground for cor. of Secs 26, 27, 34 and 35  
 marked on lead cap T<sub>29</sub>N. S 27 in N.W. R17E. S 26 in  
 N.E. S 35 in S.E. and S 34 in S.W. quadrants.  
 Dig pits 18 x 18 x 12 in in each sec 5½ ft. dist and  
 pass a mound of earth 4 ft base 2 ft; high the end  
 Land hilly.  
 Soil sandy 3<sup>rd</sup> rate.  
 Timber pine and cedar.

Subdivision of Np. 29 N. 17 E

Chains

BOOK 2591

40.00 S 89° 59' E on a random line bet. sec. 26 and 35 -  
Set trap 1/4 sec. cor.

79.98 Intersect N and S. line 12 lbs. S. of the cor. of sec. 25, 26, 35  
and 36, heretofore described,  
Thence S run

S 89° 56' W. on a true line bet. sec. 26 and 35 -  
Ascend E slope over rolling sandy land through scattering  
pinon pine and cedar timber.

39.99 Set an iron post 3ft. long, 1 in diam 26 ins. in the  
ground for 1/4 sec. cor. marked on brass cap. 145 26 on  
N. half and S 35 on S half. from which.

A cedar 8 ins. in diam. bears N 43 3/4 E. 26 lbs. dist marked  
1/4 S. 26 B.T.

A cedar 9 ins in diam bears S 53° E 90 lbs. dist marked  
1/4 S. 35 B.T.

44.00 Leave timber bear N.E. and S.W.

45.00 Begin steep descent over W. slope of bluff 35 ft. high.

55.00 Top of bluff bears N. and S. desc. gently.

69.00 Dry ravine 50 lbs. wide comes S. asc. gradually.

79.98 The cor. of sec. 26, 27, 34 and 35, heretofore described.  
Land rolling and hilly.

Soil sandy and stony 3<sup>rd</sup> and 4<sup>th</sup> rate.

Timber pinon pine and cedar.

NOTE On this cor I set off 23° 12' S on the decl. arc and at  
12<sup>h</sup> 02<sup>m</sup> p.m. local observ the sun on the meridian  
the resulting latitude being 35° 52 1/2' N.

N 0° 01' W bet. sec. 26 and 27.

Over hilly sandy land through scattering sage brush,  
and greasewood brush undergrowth and bunch grass.

4.00 Top of sand ridge bears E and W. decl.

8.00 Dry ravine comes E. asc.

12.00 Top of ridge bears E. and W. desc.

26.00 Dry ravine comes S.E. asc.

29.00 Top of ridge bears N.W. and S.E. desc N.E. slope

40.00 Set an iron post 3ft. long 1 in diam. 26 ins in  
the ground for 1/4 sec. cor. marked on brass cap. 145  
27 on W half, and S 26 on E half.

Dig pits 18 x 18 x 12 ins N and S of post 3ft. dist and  
raise a mound of earth 3 1/2 ft base, 1 1/2 ft. high



Chain

W of cor.  
 41.00 Dry ravine Course S.E. asc. gradually.  
 74.00 Foot of sandstone bluff bears NE. and S.W. ascend abruptly. Enter scattering Cedar timber bears NE and SW.  
 75.00 Top of bluff 20 ft high. bears NW and S.E. desc over NE slope.  
 80.00 Set an iron post. 3 ft. long 2 ins. in diam 24 ins. in the ground for cor. of recs. 22, 23 26 and 27. marked on base of T<sub>29</sub>N, S<sub>22</sub> in NW R17E S<sub>23</sub> in NE. S<sub>26</sub> in S.E. and S<sub>27</sub> in S.W. quadrants. from which.  
 A cedar 6 ins. in diam., bears N<sub>57</sub><sup>1</sup>/<sub>2</sub>° E 70 lbs. dist marked T<sub>29</sub>N, R17E S<sub>23</sub> B.T.  
 A pinion pine 8 ins. in diam. bears S<sub>19</sub><sup>1</sup>/<sub>4</sub>° E 61 lbs. dist. marked T<sub>29</sub>N, R17E S<sub>26</sub> B.T.  
 A pinion pine 5 ins. in diam. bears S<sub>7</sub>° W 77 lbs. dist marked T<sub>29</sub>N, R17E S<sub>27</sub> B.T.  
 A pinion pine 15 ins. in diam bears N<sub>37</sub><sup>3</sup>/<sub>4</sub>° W 91 lbs. dist. marked T<sub>29</sub>N, R17E S<sub>22</sub> B.T.  
 Land hilly.  
 Soil sandy and stony 3<sup>rd</sup> and 4<sup>th</sup> rate.  
 Timber pinion pine and cedar.

40.00 N<sub>89</sub><sup>0</sup>56' E on a random line bet. recs 23 and 26  
 Set temp 4 rec. cor  
 80.14 Intersect N and S. line at the cor. of recs 23, 24, 25 and 26; as in before described.  
 Thence S run  
 S<sub>89</sub><sup>0</sup>56' W. on a true line bet. recs. 23 and 26  
 Descend S.W. slope over hilly sandy and stony land  
 18.00 Enter scattering pinion pine and cedar timber bears N.E. and S.W.  
 29.75 Sandstone ledge bears NW. and S.E. descend abruptly  
 36.00 Dry ravine Course S.W. ascend S.E. slope of ridge.  
 40.07 Set an iron post. 3 ft. long, 1 in. in diam 20 ins. in the ground for 1/4 rec. cor. marked on base of T<sub>29</sub>N, S<sub>23</sub> on N. half, and S<sub>26</sub> on S half. from which.  
 A cedar 6 ins. in diam. bears N<sub>32</sub><sup>1</sup>/<sub>4</sub>° W 104 lbs. dist marked 1/4 S<sub>23</sub> B.T.  
 A cedar 5 ins. in diam. bears S<sub>35</sub><sup>1</sup>/<sub>2</sub>° W 116 lbs. dist

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- marked  $\frac{1}{4}$  S 26 B.T.
- 40.80 Road to Keams Canyon Ariz from Oraibi Ariz head N.E. and S.W.
- 46.50 Top of sandstone bluff 8 ft. high. head N and S.
- 51.00 Sand stone ledge 10 ft. high head N and S decl.
- 52.60 Sand stone ledge 7 ft. high head N.E. and S.W. decl.
- 58.20 Dry ravine Course S.W. asc.
- 67.50 Top of sand ridge head N.W. and S.E. decl.
- 69.00 Dry ravine Course S.E. asc.
- 80.14 The cor. of sec. 22, 23, 26 and 27, heretofore described. Land hilly and broken. Soil sandy and stony 3<sup>rd</sup> and 4<sup>th</sup> rate. Timber previous pine and cedar.

December 29<sup>th</sup> 1908.

- January 2<sup>nd</sup> 1909, At 8<sup>h</sup> 04<sup>m</sup> am l.m.t. - I set off 35° 53' N. on the lat. arc. 22° 52' S on the decl. arc. and determine a meridian with the solar at the cor. of sec. 22, 23, 26 and 27, heretofore described
- Thence I run
- N 0° 01' W to cor. sec. 22 and 23,
- Ascend S slope over hilly sandy and stony land. through scattering previous pine and cedar timber.
- 38.0 Sand stone ledge 15 ft. high head N.E. and S.W. Continue gradual ascent.
- 25.00 Leave timber head E. and W.
- 40.00 Set an iron post 3 ft long 1 in in diam 26 ins. in the ground for  $\frac{1}{4}$  sec. cor.; marked on brass cap  $\frac{1}{4}$  S 22 on W. half and S 23 on E half.
- Dig pits 18 x 18 x 12 ins N and S of post. 3 ft. dist, and raise a mound of earth 3 $\frac{1}{2}$  ft. base 1 $\frac{1}{2}$  ft. high W of cor.
- 45.00 Enter scattering previous pine and cedar timber head E and W.
- 60.00 Sandstone ledge 10 ft. high head E and W.
- 80.00 Set a cedar post 3 ft. long 4 ins. sq. 24 ins. in the ground for cor. of sec. 14, 15, 22 and 23. marked T 29 N S 14 on NE. R 17 E. S 23 on S.E. S 22 on S.W. and S 15 on NW. faces. with 2 notches on E. and 3 notches on S. edges. From which a previous pine 10 ins. in diam. head N 18 $\frac{1}{2}$ ° E 84 lbs. dist marked T 29 N R 17 E. S. 14 B.T.
- A previous pine 6 ins. in diam. head S 49 $\frac{1}{2}$ ° E 229 lbs. dist. marked T 29 N R 17 E. S. 28 B.T.

Chain

A piñon pine 6 ins. in diam bears S<sup>76</sup><sup>3</sup>/<sub>4</sub>W 193 lks. dist. marked T<sub>29</sub>N. R<sub>17</sub>E S. 22. B.T.

A cedar 8 ins. in diam bears N<sup>64</sup><sup>1</sup>/<sub>4</sub>W 44 lks. dist. marked T<sub>29</sub>N. R<sub>17</sub>E S. 15 B.T.

Land hilly and broken.

Soil sandy and stony 3<sup>rd</sup> and 4<sup>th</sup> rate.

Timber piñon pine and Cedar.

N<sup>89</sup><sup>0</sup>56' E and random line bet. sec. 14 and 23.

40.00 Set top <sup>1</sup>/<sub>4</sub> sec. cor.

80.16 Intersect N and S line 3 lks. N. of the cor. of sec. 13, ~~14~~ 23 and 24, heretofore described.

Thence down

S<sup>89</sup><sup>0</sup>57' W and true line bet. sec. 14 and 23.

Ascend E. slope over sandy and stony land through scattering piñon and cedar timber and bunch grass

30.60 Sand stone ledge 15 ft. high bears N. E. and S. W. decl.

38.50 Dry ravine course E. side.

40.08 Set an iron post 3 ft. long 1 in. in diam 26 ins. in the ground for <sup>1</sup>/<sub>4</sub> sec. cor., marked on bear cap. <sup>1</sup>/<sub>4</sub> S 14 on N half and S 23 on S. half, from which.

A cedar 12 ins. in diam bears N<sup>27</sup><sup>3</sup>/<sub>4</sub>W 125 lks. dist. marked <sup>1</sup>/<sub>4</sub> S 14 B.T.

A piñon pine 5 ins. in diam bears S<sup>57</sup><sup>0</sup>W 50 lks. dist. marked <sup>1</sup>/<sub>4</sub> S 23 B.T.

40.60 Top of stony ridge bears N. E. and S. W. decl. rocky W slope.

61.50 Foot of descent in depression bears N. and S. leave hilly land bears N. and S. enter rolling land bears N. and S.

67.50 West edge of depression bears N. and S. leave rolling land bears N. and S. ascend E. slope over hilly land bears N. and S.

80.16 The cor. of sec. 14, 15, 22 and 23, heretofore described.

Land rolling and hilly

Soil sandy and stony 3<sup>rd</sup> and 4<sup>th</sup> rate.

Timber piñon pine and Cedar.

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- No. of W. Sec. nos. 14 and 15.
- Ascend S slope over hilly sandy land through scattering  
pinion pine and cedar timber and scattering brush grass
- 12.80 Wood road head N.E. and S.W.
- 19.50 Top of ridge head E. and W. due. N. slope
- 40.00 Set an iron post 3 ft. long 1 in. in diam., 26 ins. in the  
ground for  $\frac{1}{4}$  sec. cor. marked on head Cop  $\frac{1}{4}$  S 15 on W  
half and S 14 on E half from which.
- A Cedar 9 ins. in diam head N 86° E 28 lbs. dist marked  
 $\frac{1}{4}$  S 14 B.T.
- A Cedar 12 ins. in diam. head S 60 $\frac{3}{4}$ ° W 208 lbs. dist  
marked to S 15 B.T.
- 71.50 Dry ravine/ course N.W. asc.
- 78.00 Top of ridge head N.W. and S.E. due. gently over N.E. slope
- 80.00 Set a Cedar post 3 ft. long, 4 in. sq. 24 ins. in the ground  
for cor. of sec. 10, 11, 14 and 15, marked T 29 N. S 11 on  
N.E. R 17 E S 14 on S.E. S 15 on S.W. and S 10 on N.W. faces.  
with 2 notches on E and 4 notches on S. edges  
from which.
- A Cedar 14 ins. in diam. head N 50 $\frac{1}{2}$ ° E 140 lbs. dist.  
marked T 29 N R 17 E S 11 B.T.
- A Cedar 14 ins. in diam head S 56 $\frac{3}{4}$ ° E 61 lbs. dist marked  
T 29 N. R 17 E S 14 B.T.
- A Cedar 8 ins. in diam. head S 54 $\frac{1}{2}$ ° W 50 lbs. dist  
marked T 29 N. R 17 E S 15 B.T.
- A Cedar 20 ins. in diam. head N 69 $\frac{1}{2}$ ° W 62 lbs. dist marked  
T 29 N R 17 E S 10 B.T.
- Land hilly  
Soil sandy and stony 3<sup>rd</sup> and 4<sup>th</sup> rate.  
Timber pinion pine and cedar.
- 
- N 89° 57' E on a random line Sec. nos. 11 and 14
- 40.00 Set temp  $\frac{1}{4}$  sec. cor.
- 80.22 Intersect N and S. line 2 lbs. N. of the cor. of sec. 11, 12, 13  
and 14, heretofore described.
- Thence down
- S 89° 58' W. on a true line Sec. nos. 11 and 14
- Ascend S.E. slope over rolling sandy land through  
scattering pinion pine and cedar timber and scattering  
sage and greasewood brush undergrowth and brush grass.

chains

17

10.00 Top of low ridge bears N.E. and S.W. desc. over N.W. slope  
Leaves timber bears N.E. and S.W.  
11.70 Wood road bears N.E. and S.W.  
24.00 Wood road bears N and S.  
40.11 Set an iron post 3 ft. long 1 in. in diam. 26 ins. in the  
ground for  $\frac{1}{4}$  sec. cor. marked on base Cap.  $\frac{1}{4}$  S 11 on N.  
half and S 14 on S half  
Dig pits 18x18x12 ins. East W. of post. 3 ft. dia and  
raise a mound of earth 3  $\frac{1}{2}$  ft. base  $\frac{1}{2}$  ft. high N. of cor.

52.00 Enter scattering pinion pine and cedar timber bears N and S.

80.22 The cor. of sec. 10, 11, 14 and 15, heretofore described.  
Land rolling.

Soil sandy 3<sup>rd</sup> rate.  
Timber pinion pine and cedar.

NOTE

Clouds obscure the sun at noon today rendering  
an observation for latitude impossible.

January 2<sup>nd</sup> 1909.

Jan 5<sup>th</sup> 1909  
At 3<sup>h</sup> 34<sup>m</sup> p.m. L.M.L. Deb. off.  $35^{\circ}55'$  N. on  
the lat. arc  $22^{\circ}33\frac{1}{2}'$  S. on the decl. arc and determined  
a meridian with the solar alt. the cor. of sec. 10, 11,  
14 and 15, <sup>heretofore described</sup> thence I run

N.  $0^{\circ}01'$  W. bet. sec. 10 and 11

Descend N. slope over rolling sandy land through  
scattering pinion pine and cedar timber and brush grass

16.20 Wood road bears N.E. and S.W.

38.90 Dry ravine 10 lbs. wide 3 ft deep course N.W. arc.

40.00 Set an iron post 3 ft. long 1 in. in diam. 26 ins. in the  
ground for  $\frac{1}{4}$  sec. cor. marked on base Cap.  $\frac{1}{4}$  S 10 on W.  
half and S 11 on E half

No trees suitable for bearing trees within limits.

Dig pits 18x18x12 ins. N and S. of post 3 ft. dia. and  
raise a mound of earth 3  $\frac{1}{2}$  ft. base  $\frac{1}{2}$  ft. high W.  
of cor.

50.00 Top of ridge bears N.W. and S.E. desc gradually over  
N.E. slope.

80.00 Set a cedar post 3 ft. long 3 ins. sq. with marked stone  
24 ins in the ground for cor. of sec. 2, 3, 10 and 11  
marked T 29 N. S 2 on N.E., R 17 E S 11 in S.E., S 10 in S.W.  
and S 3 on N.W. faces, with 2 notches on E and 5  
notches on S. edges

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No trees suitable for bearing trees within limits.  
Dig pits 18x18x12 ins. in each sec. 5 1/2 ft. dia. and  
raise a mound of earth 4 ft. base, 2 ft. high. W.  
of cor.

Land rolling.  
Soil sandy 3rd rate  
Timber scattering pin oak pine and cedar

January 5<sup>th</sup> 1909.

Jan 7<sup>th</sup> 1909 At 1<sup>h</sup> 06<sup>m</sup> p.m. l.m. D. set off 35° 56' N. on the  
L.H. arc 22° 21' S. on the decl. arc and determine a  
meridian with the solar at the cor. of secs. 2, 3, 10 and 11,  
Thence D run

40.00 N 89° 58' E on a random line bet. secs. 2 and 11  
Set temp. 1/4 sec. cor.

80.24 Intersect N and S line 14 lbs. S. of the cor. of secs  
1, 2, 11 and 12, <sup>heretofore described</sup> Thence D run.

89° 52' W. on a true line bet. secs 2 and 11  
Descend N.W. slope over rolling sandy land through  
scattering cedar timber and bunch grass.

22.00 Wood road bears N.E. and S.W.

36.00 Dry ravine 60 lbs. wide 10 ft. deep course N.W. and  
N.E. slope.

40.12 Set an iron post 3 ft. long, 1 in. in diam. 26 ins. in the  
ground for 1/4 sec. cor. marked on brass cap 1/4 32. on N.  
half and S 11. on S half

No trees suitable for bearing trees within limits  
Dig pits 18x18x12 ins. E and W. of post. 3 ft. dia. and  
raise a mound of earth 3 1/2 ft. base. 1 1/2 ft. high. W. of  
cor.

60.00 Top of ridge bears N.W. and S.E. desc. gradually S.W. slope

61.00 Wood road bears N and S.

80.24 The cor. of secs 2, 3, 10 and 11, heretofore described.

Land rolling.  
Soil sandy 3rd rate.  
Timber scattering cedar.

N 0° 01' W. on a random line bet. secs 2 and 3.

Chasius

- 40.00 Set temp  $\frac{1}{4}$  sec. cor.
- 79.96 Intersect N. bdy of Twp. 24 lhd.  $S 89^{\circ} 53' W$  the cor. of sec 2, 3, 34 and 35, recently estab. by me & described in Exterior Bk. "P",  
Thence I run  
  - $S 0^{\circ} 09' W$ . on a true line bet. sec 2 and 3
  - Ascend N. slope over rolling sandy land through scattering piñon pine and cedar timber
- 7.20 Top of ledge toward E and W. thence over rolling sandy land.
- 12.00 Leave rolling land toward E. and W., enter hilly land. toward E and W descend steep S slope into ravine.
- 20.45 Dry ravine course W are. N. slope.
- 29.00 Top of sand ridge toward NE and SW desc.
- 35.00 Foot of descent in depression toward E and W, are gradually
- 39.96 Set an iron post 3ft. long, 1 in. in diam. 26 ins. in the ground for  $\frac{1}{4}$  sec. cor. marked on brass cap  $\frac{1}{4}$  S 3 on W. half and S 2 on E. half, from which  
  - A cedar 8 ins. in diam toward  $N 46^{\circ} \frac{3}{4} E$  127 lbs. dist marked  $\frac{1}{4}$  S 3 B.T.
  - A cedar 10 ins. in diam, toward  $N 80^{\circ} W$ : 191 lbs. dist, marked  $\frac{1}{4}$  S 3 B.T.
  - A large spring toward  $S 58^{\circ} \frac{1}{4} E$  9.00 lbs. dist.
- 48.00 Begin steep ascent over N.W. slope.
- 51.00 Top of steep ascent. ascend gradually.
- 79.96 The cor. of sec 2, 3, 10 and 11, heretofore described.  
  - Land rolling and hilly.
  - Soil sandy and stony 3<sup>rd</sup> and 4<sup>th</sup> rate.
  - Timber piñon pine and cedar.

January 7<sup>th</sup> 1909.

December 30<sup>th</sup> 1908 Ab. 8<sup>h</sup> 02<sup>m</sup> am. l.m. I set off  
 $35^{\circ} 51 \frac{1}{2}' N$  on the lab. arc.  $23^{\circ} 06' S$  on the decl. arc.  
 and determine a meridian with the solar ab. the  
 Standard Cor. of Sec 33 and 34 on S bdy. of Twp.; recently  
 estab. by me & described in Standard Book "C"  
 Thence I run  
 $N 0^{\circ} 02' W$  bet. sec. 33 and 34  
 Over rolling sandy mesa land through heavy piñon  
 pine and cedar timber

4000 Set an iron post 3ft. long, 1 in. in diam., 26 ins. in the ground.  
 for  $\frac{1}{4}$  sec. cor. marked on brass cap  $\frac{1}{4}$  S 3 on W half and

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- S 34 on E half. from which.  
 A cedar 5 ins. in diam. bear  $N 74\frac{1}{4}^{\circ} E$  142 lbs. dist. marked  
 $\frac{1}{4} S 34$  B.T.  
 A cedar 6 ins. in diam. bear  $S 37\frac{3}{4}^{\circ} W$  184 lbs. dist. marked  
 $\frac{1}{4} S. 33$  B.T.  
 80.00 Set an iron post 3 ft. long 2 ins. in diam. 24 ins. in the  
 ground for cor. of sec. 27, 28, 33 and 34, marked on  
 brass cap T<sub>29</sub>N S. 28 in N.W. R<sub>17</sub>E S 27 in N.E. S 34 in S.E.  
 and S 33 in S.W. quadrants from which  
 A cedar 7 ins. in diam. bear  $N 62\frac{1}{2}^{\circ} E$  48 lbs. dist. marked  
 T<sub>29</sub>N. R<sub>17</sub>E S 27 B.T.  
 A cedar 6 ins. in diam bear  $S 46\frac{3}{4}^{\circ} E$  67 lbs. dist. marked  
 T<sub>29</sub>N. R<sub>17</sub>E S 34 B.T.  
 A cedar 14 ins. in diam bear  $S 35\frac{1}{4}^{\circ} W$  320 lbs. dist.  
 marked T<sub>29</sub>N. R<sub>17</sub>E S 33 B.T.  
 A cedar 12 ins. in diam. bear  $N 45\frac{3}{4}^{\circ} W$  207 lbs. dist.  
 marked T<sub>29</sub>N. R<sub>17</sub>E S 28 B.T.  
 Land rolling.  
 Soil sandy 3<sup>rd</sup> rate.  
 Timber prairie pine and cedar.

- $S 89^{\circ} 59' E$  on a random line bet. sec. 27 and 34  
 40.00 Set top  $\frac{1}{4}$  sec. cor.  
 80.10 Intersect N and S. line 12 lbs. S of the cor. of sec. 26  
 27, 34 and 35; heretofore described,  
 Thence S run  
 $S 89^{\circ} 56' W$  on a true line bet. sec. 27 and 34.  
 A road E slope over hilly land through scattering  
 prairie pine and cedar timber  
 3.00 Road from Cor. to Grand Canyon bear NW. and S.E.  
 20.00 Top of rocky ridge bear NW. and S.E. desc.  
 25.00 Dry ravine course S.E. asc.  
 30.00 Top of ridge bear NW. and S.E. desc  
 33.50 Dry ravine course S.E. asc.  
 36.50 Sand stone ledge 15 ft. high bear NE and S.W.  
 40.00 Set an iron post 3 ft. long 1 in. in diam. 26 ins. in the  
 ground for  $\frac{1}{4}$  sec. cor. marked on brass cap.  $\frac{1}{4}$  S 27 on  
 N. half and S 34 on S half. from which  
 A prairie pine 10 ins. in diam. bear  $N 34\frac{1}{2}^{\circ} W$  50 lbs. dist.  
 marked  $\frac{1}{4} S 27$  B.T.



A pinion pine 8 ins. in diam bears S 5 3/4° E 58 lbs. dist. marked 1/4 S 34 B.T.

77.00 Pop. of arch on E edge of mesa bears N.E. and S.W. bears hilly land bears N.E. and S.W. Enter rolling land bears N.E. and S.W. descend over NW. slope

80.10 The cor of sec. 27 28 33 and 34, hereinbefore described. Land rolling and hilly Soil sandy and stony 3<sup>rd</sup> and 4<sup>th</sup> rate. Timber pinion pine and cedar.

Dec. 30, <sup>1908</sup> at the 1/4 sec. cor. bet. sec. 27 and 34, <sup>above described</sup> S. 23° 08' S. on the dial arc. and at 12<sup>h</sup> 2 1/2<sup>m</sup> p.m. L.M.T. observe the sun on the meridian and obtain on the lat. arc a reading of 7.35° 52 1/2' N.

N 0° 02' W bet. sec. 27 and 28.

Over rolling sandy mesa land slopes to N.W. through heavy pinion pine and cedar timber.

5.00 Leave heavy timber bears N.E. and S.W. enter scattering timber bears N.E. and S.W.

15.50 Wood road bears N.E. and S.W.

40.00 Set an iron post 3 ft. long 1 in. in diam 26 ins. in the ground for 1/4 sec. cor marked on bear cop 1/4 S 28 in W half and S. 27 on E half. from which.

A cedar 6 ins. in diam bears N 33° E 28 lbs. dist. marked 1/4 S 27 B.T.

A cedar 5 ins. in diam. bears S 6 1/2° W 238 lbs. dist marked 1/4 S 28 B.T.

44.50 This cor falls in edge of old road bears N.E. and S.W Road from Oraibi Ariz to Keams Canyon Ariz bears N.W. and S.E.

80.00 Set an iron post 3 ft. long 2 ins. in diam 24 ins. in the ground for cor of sec 21, 22, 27, and 28, marked on bear cop. T 29 N. S 21 in N.W. R 17 E S 22 in N.E. S 27 in S.E. and S 28 in S.W. quadrant, from which.

A cedar 9 ins. in diam. bears S 36 1/2° E 138 lbs. dist marked T 29 N. R 17 E S 27 B.T.

A cedar 8 ins in diam bears S 8 3/4° W 238 lbs. dist, marked T 29 N. R 17 E S. 28 B.T.

A cedar 12 ins. in diam bears N 9° W 381 lbs. dist mked.

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T<sub>29</sub>N R<sub>17</sub>E S<sub>21</sub> B.T.

No other trees within the prescribed limits.  
Dig pit 36x36x12 ins in sec. 22 5 1/2 ft. dia. and  
raise a mound of earth 4 ft. base, 2 ft. high N. of cor.  
Land rolling  
Soil sandy 3<sup>rd</sup> rate.  
Planted Juniper pine and cedar.

40.00 V 89° 56' E on a random line bet. sec. 22 and 27.  
Set temp 1/4 sec. cor.

80.16 Intersect N. and S line 2 hrs 3 of the cor. of sec. 22  
23 26. and 27, heretofore described,  
thence run

S 89° 55' W on a true line bet. sec. 22 and 27

Ascend E slope on hilly stony land through scattering  
juniper pine and cedar timber, and sage and greasewood  
bush undergrowth and bunch grass.

2.75 Sand stone ledges 15 ft. high bear NE and SW.

19.00 Top of ridge bear NE and SW desc gradually, low timber N and S.

40.08 Set an iron post 3 ft. long 1 in. in diam. 26 ins. in the  
ground for 1/4 sec. cor. marked on brass cap 1/4 S. 22 on N.  
half and S 27 on S. half.

Dig pits 18x18x12 ins E and W. of post 2 ft. dia. and  
raise a mound of earth 3 1/2 ft. base, 1 1/2 ft. high. N. of  
cor

40.50 Top of descent. leave hilly land bear NE and SW.  
Enter rolling sandy land bear NE and SW.

53.50 Wood road bear NE and SW.

69.00 Enter scattering cedar timber bear N and S

80.16 The cor. of sec. 21, 22, 27 and 28, heretofore described.

Land rolling and hilly  
Soil sandy and stony 2<sup>nd</sup> 3<sup>rd</sup> and 4<sup>th</sup> rate.  
Planted Juniper pine and cedar

December 30<sup>th</sup> 1908

Jan 5<sup>th</sup> 1909  
At 8<sup>h</sup> 35<sup>m</sup> am. l.m.l. set off 35° 53' N. on the lat.,  
arc. 22° 35' 1/2 S. on the decl. arc. and determine a merid. and  
with the solar at the cor. of sec. 21, 22, 27 and 28; heretofore described.

Chain

Thence Drum

N 0° 02' W to sec. 21 and 22.

Descend N.W. slope over rolling and hilly land through scattering juniper pine and cedar timber and bunch grass

3.80 Dry ravine course S.W. ascend gradually.

25.00 Top of ridge from N.E. and S.W. desc.

36.50 Dry ravine course N.W. asc.

40.00 Set an iron post 3 ft. long 1 in. in diam 26 ins. in the ground for  $\frac{1}{4}$  sec. cor. marked on brass cap  $\frac{1}{4}$  S 21 on W half and S 22 on E half from which.

A juniper pine 6 ins. in diam bears S 36  $\frac{3}{4}$ ° E 139 lbs. dist marked  $\frac{1}{4}$  S 22 P.T.

A juniper pine 10 ins. in diam. bears N 77° W 329 lbs. dist marked  $\frac{1}{4}$  S 21 P.T.

40.50 Top of ridge from N.W. and S.E. desc N.E. slope.

65.00 Clear timber from N.E. and S.W.

80.00 Set an iron post 3 ft. long 2 ins. in diam. 24 ins. in the ground for cor. of secs. 15, 16, 21 and 22 marked on brass cap T 29 N. S 16 in N.W. R 17 E S 15 in N.E. S 22 in S.E. and S 21 in S.W. quadrant.

Dig pits 18x18x12 ins. in each sec 5  $\frac{1}{2}$  ft. dist, and raise a mound of earth 4 ft base, 2 ft high  $\frac{1}{4}$  sec. Land rolling and hilly.

Soil sandy 3<sup>rd</sup> rate.

Timber juniper pine and cedar.

N 89° 55' E on a random line to sec. 15 and 22

40.00 Set temp.  $\frac{1}{4}$  sec. cor.

80.14 Intersect N and S. line 5 lbs. S of the cor. of secs. 14, 15, 22 and 23, heretofore described,

Thence Drum

S 89° 53' W on a true line to sec. 15 and 22.

Ascend S.E. slope over rolling sandy land through juniper pine and cedar timber and bunch grass.

12.00 Top of low sand ridge from N.E. and S.W. desc. gently

14.80 Wood road from N.E. and S.W.

29.80 Begin rapid descent over W. slope, clear timber from N.W. and S.E.

30.50 Foot of steep descent descend gradually.

Chains

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40.07 Set an iron post 3 ft. long, 1 in. in diam., 26 ins. in the ground for  $\frac{1}{4}$  sec. cor. marked on brass cap.  $\frac{1}{4}$  S 15 on N half and S 22 on S. half.

Dig pits 18x18x12 ins., 8 and W. of post. 3 ft. dist and raise a mound of earth 3 $\frac{1}{2}$  ft. base, 1 $\frac{1}{2}$  ft. high N. of cor.

58.00 Dry ravine 20 lbs wide 4 ft. deep course NW.

75.50 Wood road bears N and S.

80.14 The cor. of secs. 15, 16, 21 and 22, hereinbefore described. Land rolling and hilly.

Soil sandy and stony 3<sup>rd</sup> and 4<sup>th</sup> rates.

Timber pinon pine and cedar

At this cor. set off 22 $\frac{1}{2}$  36' S on the decl. arc and on 12 $\frac{1}{2}$  05<sup>m</sup> from. Com. observe the sun on the meridian the resulting latitude being 35 $\frac{1}{2}$  54' N.

N $0^{\circ}02'$  W bet. secs 15 and 16.

Descend N.E. slope over rolling sandy mesa land through sage and greasewood bush undergrowth and bunch grass.

17.00 Dry ravine course NW. are gently.

40.00 Set an iron post 3 ft. long, 1 in. in diam., 26 ins. in the ground for  $\frac{1}{4}$  sec. cor. marked on brass cap.  $\frac{1}{4}$  S 16 on W. half and S 15 on E half.

Dig pits 18x18x12 ins. N and S. of post. 3 ft. dist, and raise a mound of earth 3 $\frac{1}{2}$  ft. base, 1 $\frac{1}{2}$  ft. high W. of cor.

48.00 Top of low ridge bears N.E. and S.W. desc.

70.50 Dry ravine course NW. enter pinon pine and cedar timber. bears NW. and S.E.

80.00 Set an iron post 3 ft. long, 2 ins. in diam., 24 ins. in the ground for cor. of secs. 9, 10, 15 and 16. marked on brass cap T 29 N 39 in NW, R 17 E S 10 in N.E. S 15 in S.E. and S 16 in S.W. quadrant. from which

A cedar 18 ins. in diam. bears N 67 $\frac{1}{2}$  E 220 lbs. dist marked T 29 N, R 17 E S 10 B.T.

A cedar 8 ins. in diam., bears S 23 $\frac{1}{2}$  E 150 lbs. dist marked T 29 N, R 17 E S 15 B.T.

No other trees available.

Dig pits 24x24x12 ins. <sup>in secs.</sup> 9 and 16, 5 $\frac{1}{2}$  ft. dist, and raise a mound of earth 4 ft. base, 2 ft. high W. of cor.

Chain

Land rolling  
Soil sandy 3<sup>rd</sup> rate.  
Timber pinon pine and cedar.

40.00 Set temp & rec. cor.  
80.20 Intersect N and S line 8 lbs N. of the cor. of recs. 10, 11  
14 and 15, heretofore described,  
Thence I run

5.00 Dry ravine 25 lbs. wide 3 ft deep course NW.  
40.10 S 89° 56' W on a true line bet. recs. 10 and 15  
Over rolling sandy mesa land through scattering  
pinon pine and cedar timber and bunch grass.

40.10 Set an iron post 3 ft. long 1 in. in diam. 26 in. in the  
ground for  $\frac{1}{4}$  rec. cor. marked on brass cap.  $\frac{1}{4}$  S 10 on  
N half and S 15 on S half. from which.

A cedar 18 in. in diam. bear N 11 $\frac{1}{2}$ ° W 195 lbs. dist,  
marked  $\frac{1}{4}$  S 10 B.T.

A cedar 12 in. in diam. bear S 52 $\frac{1}{4}$ ° W 275 lbs. dist  
marked  $\frac{1}{4}$  S 15 B.T.

60.00 Top of low sand ridge bear N and S. desc. gradually  
over W slope

80.20 The cor. of recs. 9, 10, 15 and 16, heretofore described.

Land rolling.  
Soil sandy 3<sup>rd</sup> rate.  
Timber pinon pine and cedar.

January 5<sup>th</sup> 1909

Jan 7<sup>th</sup> 1909  
At 8<sup>h</sup> 20<sup>m</sup> am. limit. I set off 35° 55' N. on the  
lat arc. 22' 21" S on the decl. arc and determined  
meridian with the solar at the cor. of recs. 9, 10, 15 and  
16, heretofore described,

Thence I run  
N 10° 02' W bet. recs. 9 and 10  
Over rolling mesa land. sloped to N.W. through scattering  
pinon pine and cedar timber and bunch grass.

30.80 Wood road bear N.W. and S.E.

40.00 Set an iron post 3 ft. long 1 in. in diam. 26 in. in the  
ground for  $\frac{1}{4}$  rec. cor. marked on brass cap.  $\frac{1}{4}$  S 9 on W half

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- and S 10 on E half. from which.  
 A cedar 8 ins. in diam. bears  $N 64^{\circ} E$  84 lbs. dist. marked  
 143 10 B.T.  
 A pinon pine 6 ins. in diam. bears  $N 82^{\circ} W$  42 lbs. dist.  
 marked 459 B.T.
- 49.36 North edge of mesa leaves rolling land bears E and W  
 descend abrupt rocky N.W. slope over mountainous land  
 bears E and W
- 51.90 Dry ravine course N.E. asc.
- 53.00 Top of spur bears E. and W. desc.
- 55.50 Dry ravine course N.E. asc.
- 68.00 Top of spur bears N.E. and S.W. desc. steeply.
- 80.00 The point for cor. of secs. 3, 4, 9 and 10 falls in the bottom  
 of dry ravine course S.W. where natural course would  
 insure the destruction of a corner, therefore at.
- 79.00 Set an iron post 3 ft. long 2 in in diam, 24 ins. in the  
 ground for witness cor. to the cor. of secs 3, 4, 9 and 10  
 marked on base cap. W.C on N half. T 29 N. S 4 in  
 N.W. R 17 E. S 3 in N.E. S 10 in S.E. and S 9 in S.W. quadrants.  
 from which.  
 A cedar 7 ins. in diam. bears  $N 14^{\circ} E$  402 lbs. dist.  
 marked W.C T 29 N. R. 17 E S 3 B.T.  
 A cedar 10 ins. in diam. bears  $S 24^{\circ} E$  365 lbs. dist.  
 marked W.C T 29 N R 17 E S 10 B.T.  
 A cedar 8 ins. in diam. bears  $S 66^{\circ} W$  289 lbs. dist.  
 marked W.C T 29 N. R 17 E S 9 B.T.  
 A cedar 12 ins. in diam. bears  $N 14^{\circ} W$  206 lbs. dist.  
 marked W.C. T 29 N. R 17 E S 4 B.T.
- Land rolling and mountainous.  
 Soil sandy and stony. 3<sup>rd</sup> and 4<sup>th</sup> rate.  
 Timber pinon pine and cedar.  
 Mountainous land 30,65 Chv.
- 
- From true point for cor. of secs. 3, 4, 9 and 10, I run,  
 $N 89^{\circ} 56' E$  on a random line bet. secs. 3 and 10
- 40.00 Set temp. 4 sec. cor.
- 80.20 Intersect N and S. line 8 lbs. S of the cor. of secs 2, 3  
 10 and 11, heretofore described,  
 thence I run  
 $S 89^{\circ} 53' W$  on a true line bet. secs. 3 and 10  
 Descend N.W. slope over rolling mesa land, through  
 sage brush and bunch grass.

Chains

27

- 40.10 Set an iron post 3 ft. long 1 in. in diam 26 ins. in the ground for  $\frac{1}{4}$  sec. cor. marked on base cap.  $\frac{1}{4}$  S 3 on N half and 310 on S half.  
Dig pits 18x18x12 ins. E and W of post. 3 ft. dirt and raise a mound of earth 3  $\frac{1}{2}$  ft. base 1  $\frac{1}{2}$  ft. high. N. of cor.
- 44.00 Enter scattering cedar timber tract N.E. and S.W.
- 51.50 West edge of mesa leave rolling land tract N.E. and S.W. descend over stony mountainous land tracts N.E. and S.W.
- 80.20 The point for cor. of secs. 3, 4, 9 and 10, heretofore described.  
Land rolling and mountainous.  
Soil sandy and stony 3<sup>rd</sup> and 4<sup>th</sup> rate.  
Timber Cedar.  
Mountainous land. 2870 elev.
- 
- From true point for cor. of secs. 3, 4, 9 and 10, I run.  
N  $0^{\circ} 02' W$ . on a random line bet. secs. 3 and 4
- 40.00 Set temp  $\frac{1}{4}$  sec. cor.
- 79.96 Intersect N. line of Tp. 34 lks.  $589^{\circ} 53' W$  of the cor. of secs. 3, 4, 33 and 34, recently estab. by me and described in Exterior Book "P"  
Thence I run  
S  $0^{\circ} 13' W$  on a true line bet. secs. 3 and 4.  
Ascend N slope over hilly sandy land, through scattering scrub cedar timber.
- 16.00 Ascend abruptly over stony land tract E and W.
- 19.00 Top of abrupt ascent. tract E and W. ascend gradually
- 39.96 Set an iron post 3 ft. long 1 in. in diam 26 ins. in the ground for  $\frac{1}{4}$  sec. cor. marked on base cap  $\frac{1}{4}$  S 4 on W half and 33 on E half. from which.  
A cedar 8 ins. in diam. bear S  $11\frac{1}{2}^{\circ} E$  108 lks. dist. marked  $\frac{1}{4}$  S 3 B.T.
- A pinion pine 10 ins. in diam. bear S  $40^{\circ} W$  144 lks. dist. marked  $\frac{1}{4}$  S 4 B.T.
- 60.00 Top of ridge tract E and W. desc. gradually over S slope
- 75.20 South edge of mesa on Cliff. tract E and W. leave hilly land tract E and W. descend S slope over stony mountainous land.
- 79.96 The point for cor. of secs. 3, 4, 9 and 10, heretofore described.  
Land hilly and mountainous.

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Soil sandy and stony 3<sup>rd</sup> and 4<sup>th</sup> rates.  
Timber pinion pine and Cedar  
Mountainous land 4.80 Ch.

NOTE

At the 1/4 sec. cor. bet. Secs 3 and 4 <sup>above described</sup> N. D. bet. off. 22° 22' S  
on the decl. arc and at 12<sup>h</sup> 05<sup>m</sup> p.m. limit observe the  
sun on the meridian and obtain a reading of 35° 56' 77.  
on the lab. arc.

January 7<sup>th</sup> 1907

December 31<sup>st</sup> 1908. At 9<sup>h</sup> 03<sup>m</sup> am. limit D. bet. off.  
35° 51 1/2' N. on the lab. arc. 23° 104' S on the decl. arc  
and determine a meridian with the solar at the  
Stand. Cor. of Secs 32 and 33 on S. Side of Twp. recently  
estab. by me and described in Standard Book "C"  
Three D. run

W 0° 0' W. Feb. Secs. 32 and 33.

Over rolling sandy mesa land through scattering pinion  
pine and Cedar timber, and bunch grass.

17.42 North edge of mesa, leave rolling land bear N.E. and  
S.W. enter mountainous land bear N.E. and S.W. desc  
abruptly over sand stone cliffs.

22.00 Dry ravine course W. asc spur.

31.60 Top of spur bear N.W. and S.E. desc.

39.10 Dry ravine course W ascend S. slope of mesa.

40.00 Set an iron post. 3ft. long 1 in in diam. 26 ins. in  
the ground for 1/4 sec. cor marked on brass cap 4 532  
on W half and 533 on E half. No trees available  
Dig pits 18x18x12 ins. N and S of post. 3ft. dirt  
and raise a mound of earth 3 1/2 ft base 1 1/2 ft high  
W of cor.

52.70 Top of ascent on S edge of mesa leave mountainous  
land bear E. and W. enter, rolling sandy mesa  
land bear E and W.

80.00 Set an iron post. 3ft. long 2 ins. in diam, 24 ins  
in the ground for cor. of Secs. 28, 29 32 and 33.  
marked on brass cap T 29 N. S 29 in N.W. R17 E S 28 in  
N.E. 333 in S.E. and 332 in S.W. quadrants.

from which

A cedar 6 ins. in diam. bear N 17 1/2° E 28 lbs. dia.  
marked T 29 N. R17 E S 28 B.T.

A cedar 14 ins. in diam. bear S 29 1/2° E 247 lbs. dia.



Marked T<sub>29</sub>N. R<sub>17</sub>E S<sub>33</sub> B.T.

A Cedar 4 ins. in diam. bears S<sub>29</sub><sup>3</sup>/<sub>4</sub>W 235 lks. dist.  
marked T<sub>29</sub>N. R<sub>17</sub>E S<sub>32</sub> B.T.

A Cedar 5 ins. in diam. bears N<sub>83</sub><sup>0</sup>W 219 lks. dist.  
marked T<sub>29</sub>N. R<sub>17</sub>E S<sub>29</sub> B.T.

Land rolling and mountainous.

Soil sandy and stony 3<sup>rd</sup> and 4<sup>th</sup> rate.

Timber prairie pine and cedar

Mountainous land. 35.28 Chs /

40.00

S<sub>89</sub><sup>0</sup>59' E on a random line bet. sec. 28 and 33

Set temp. 1/4 sec. cor

80.06

Intersect N and S line 3 lks. S of the cor. of sec 27, 28  
33 and 34, heretofore described,  
Thence Drum

West. on a true line bet. sec. 28 and 33.

Over rolling sandy mesa land slopes to East. through  
heavy prairie pine and cedar timber and bunch grass.

5.70

Top of low sand ridge bears N.E. and S.W. due N.W.  
slope

5.75

Wood road bears N.E. and S.W.

36.00

Wood road bears N.E. and S.W.

40.03

Set an iron post. 3 ft. long 1 1/2 in diam 26 in. in the  
ground for 1/4 sec. cor. marked 1/4 S<sub>28</sub> on N. half and  
S<sub>33</sub> on S half, from which

A Cedar 6 ins. in diam. bears N<sub>25</sub><sup>1</sup>/<sub>4</sub>W 130 lks. dist.  
marked 1/4 S<sub>28</sub> B.T.

A Cedar 4 ins in diam bears S<sub>2</sub><sup>1</sup>/<sub>2</sub>E 47 lks. dist.  
marked 1/4 S<sub>33</sub> B.T.

NOTE

At this cor I set off 23<sup>0</sup>04' S on the decl. arc and  
at 12<sup>h</sup>03<sup>m</sup> pm. l.m.t. observed the sun on the meridian  
the resulting latitude being 36<sup>0</sup>52<sup>1</sup>/<sub>2</sub>' N.

80.06

The cor. of sec. 28, 29, 32 and 33, heretofore described.

Land rolling.

Soil sandy 3<sup>rd</sup> rate.

Timber prairie pine and cedar.

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- N 0° 03' W. Secs. 28 and 29,  
Over rolling sandy mesa land through scattering juniper pine  
and cedar timber
- 4.50 N. edge of mesa tract E. and W. low rolling land tract  
E. and W. descend rocky N slope over mountainous land  
tract E and W
- 20.00 Descend sand stone ledge 20 ft high tract E and W
- 30.00 Dry ravine course N.W. sec.
- 34.00 Top of spur tract N.W. and S.E. sec.
- 37.00 Dry ravine course N.W. sec.
- 39.20 Sand stone ledge 15 ft high tract N.E. and S.W.
- 40.00 Set an iron post 3 ft long 1 in in diam. 26 ins in the  
ground for  $\frac{1}{4}$  sec. cov. marked on brass cap  $\frac{1}{4}$  S 29 on  
W. half and S 28 on E half. from which  
A cedar 5 ins. in diam. tract N 76 $\frac{1}{4}$ ° E 226 lbs. dist.  
marked  $\frac{1}{4}$  S 28 B.T.
- A cedar 12 ins. in diam tract N 57 $\frac{1}{2}$ ° W 119 lbs. dist.  
marked  $\frac{1}{4}$  S 29 B.T.
- 42.50 Sandstone ledge 6 ft high tract N.W. and S.E.
- 50.30 Top of rocky spur tract E. and W. sec
- 70.10 Road from Oraibi Ariz to Grand Canyon Ariz tract  
N.E. and S.W.
- 71.50 Bottom of Canyon 200 ft. below top of mesa cross dry  
ravine 150 lbs. wide 5 ft deep course S.W. sec. S.W. slope
- 80.00 Set an iron post 3 ft long 2 ins. in diam. 24 ins. in  
the ground for cov. of secs. 20, 21, 28, and 29,  
marked on brass cap T 29 N. S 20 in N.W. R 17 E S  
21 in N.E. S 28 in S.E. and S 29 in S.W. quadrants  
from which.  
A cedar 14 ins. in diam. tract N 20 $\frac{1}{4}$ ° E 96 lbs. dist  
marked T 29 N R 17 E S 21 B.T.
- A cedar 14 ins. in diam tract S 67 $\frac{1}{2}$ ° E 48 lbs. dist. mkt.  
T 29 N. R 17 E S 28 B.T.
- A cedar 10 ins. in diam. tract S 39 $\frac{3}{4}$ ° W 213 lbs. dist.  
marked T 29 N. R 17 E S 29 B.T.
- A cedar 8 ins. in diam tract N 38 $\frac{3}{4}$ ° W 111 lbs. dist.  
marked T 29 N. R 17 E S 20 B.T.
- Land rolling and mountainous.  
Soil sandy and stony 3<sup>rd</sup> and 4<sup>th</sup> rate.  
Timber juniper pine and cedar.  
Mountainous land 75.50 Chv.

Chain

- 40.00 East on a random line bet sec 21 and 28.  
Set temp  $\frac{1}{4}$  sec. cor.
- 80.16 Intersect N and S. line 8 lks. S of the cor. of sec.  
21, 22, 27 and 28, heretofore described,  
Thence I run  
S 89° 57' W on a true line bet sec 21 and 28.  
Over rolling sandy mead land through scattering  
pinon pine and cedar timber and brush grass  
8.15 Dry ravine 20 lks. wide 3 ft. deep. Course S.W.
- 36.40 West edge of mead land rolling land toward N.E. and  
S.W. descend. NW. slope over stony mountainous  
land toward N.E. and S.W.
- 40.08 Set a iron post 3 ft. long 1 in. in diam. 26 ins. in the  
ground for  $\frac{1}{4}$  sec. cor marked on true cor  $\frac{1}{4}$  S 21 on  
N half and S 28 on S half - from which.  
A pinon pine 6 ins. in diam. toward N, 65  $\frac{1}{4}$ ° E 45 lks.  
dist, marked  $\frac{1}{4}$  S 21 B.T.  
A cedar 8 ins. in diam, toward S 32  $\frac{3}{4}$ ° E 43 lks. dist,  
marked  $\frac{1}{4}$  S 28 B.T.
- 66.50 Dry ravine 70 lks. wide 5 ft. deep. Course S.W. asc.
- 72.00 Top of spur toward N.E. and S.W. desc.
- 73.00 Dry ravine 75 lks wide 7 ft. deep course S.W. asc.
- 78.50 Top of spur toward N. and S. desc.
- 80.16 The cor of sec 20, 21, 28, and 29, heretofore described.  
Land rolling and mountainous.  
Soil sandy and stony 3<sup>rd</sup> and 4<sup>th</sup> rate.  
Timber pinon pine and cedar.  
Mountainous land 72.01 lks.

Decem ber 31<sup>st</sup> 1908.

- Jan 6<sup>th</sup> 1908  
At 8<sup>h</sup> 15<sup>m</sup> am l.m.t. - Set off 35° 53' N. on  
the lat arc, 22° 28' S on the decl arc and determine a  
meridian with the solar at the cor of sec 20, 21 28  
and 29, heretofore described,  
Thence I run  
N 0° 03' W. bet. sec 20 and 21.  
Ascend S slope of mead over mountainous land.  
through scattering pinon pine and cedar timber.
- 1.00 Top of spur toward N.E. and S.W. desc.
- 2.20 Dry ravine course S.W. ascend.

Chain

BOOK 2591

- 4.80 Top of spur trail N.E. and S.W. desc. NW slope.
- 9.00 Dry ravine course S.W. around abruptly over sandstone ledges.
- 19.80 Top of arroyo on S. edge of mesa trail E and W, leave mountainous land trail E and W. enter rolling mesa land trail E and W, around gradually over S. slope.
- 40.00 Set an iron post 3 ft long 1 in. in diam 26 ins. in the ground for  $\frac{1}{4}$  sec. cor. marked on trail cap '14 S 20 on W half and S 21 on E half.
- No trees suitable for bearing trees within limits  
Dig pits 18x18x12 ins N and S. of post. 3 ft. dia. and raise a mound of earth  $3\frac{1}{2}$  ft. base 11 ft. high W. of cor.
- 42.00 Top of ridge trail E and W. desc. gradually over N. slope.
- 62.00 North edge of mesa, leave rolling land trail E and W, descend abruptly rocky N. slope over mountainous land trail E. and W.
- 80.00 Set an iron post 3 ft. long. 2 ins. in diam 24 ins. in the ground for cor. of sec. 16, 17 20 and 21 marked on trail cap T<sub>29</sub>N, S<sub>17</sub> in N.W., R<sub>17</sub>E S<sub>16</sub> in N.E. S<sub>21</sub> in S.E. and S<sub>20</sub> in S.W. quadrant, from which  
A fir or pine 6 ins in diam trail  $71^{\circ}8\frac{1}{2}'$  E 83 lbs. dist, marked T<sub>29</sub>N R<sub>17</sub>E S<sub>16</sub> B.T.  
A fir or pine 8 ins. in diam trail  $S 4^{\circ}\frac{1}{2}'$  E 53 lbs dist marked T<sub>29</sub>N, R<sub>17</sub>E S<sub>21</sub> B.T.  
A fir or pine 8 ins. in diam trail  $S 51^{\circ}\frac{1}{2}'$  W 60 lbs. dist, marked T<sub>29</sub>N R<sub>17</sub>E S<sub>20</sub> B.T.  
A fir or pine 6 ins. in diam trail  $N 76^{\circ}$  W 181 lbs. dist. marked T<sub>29</sub>N R<sub>17</sub>E S<sub>17</sub> B.T.
- Land rolling and mountainous.  
Soil sandy and stony 3<sup>rd</sup> and 4<sup>th</sup> rates,  
Pine fir or pine and cedar  
Mountainous land. 37.80 Chs.

N 89° 57' E on a random line bet. sec. 16 and 21

40.00 Set top  $\frac{1}{4}$  sec. cor

80.14 Intersect N and S line 2 chs N. of the cor. of sec. 15, 16 21 and 22, heretofore described.

Subdivision of P<sup>1</sup>/<sub>4</sub> 29<sup>th</sup> N. R<sup>1</sup>/<sub>4</sub> E

Chain

Thence I run S 89° 58' W on a true line between sec 16 and 21

Around S.E. slope over rolling sandy mesa land through sage brush and bunch grass

13.00 Top of sand ridge bears N.W. and S.E. desc gradually over N.W. slope.

31.50 Dry ravine course N.W. enter scattering cedar and juniper pine timber bears N.W. and S.E. asc.

32.20 Wire fence bears N. and S.

40.07 Set an iron post 3ft long. 1.5 in diam. 26 ins in the ground for 1/4 sec. cov. marked on brass cap 1/4 S 16 on N. half and S 21 on S half. from which, A cedar 6 ins. in diam. bears N 22 1/2° E 273 lbs. dist. marked 1/4 S 16 B.T.

A cedar 7 ins. in diam. bears S 38° E 307 lbs. dist. marked 1/4 S 21. B.T.

NOTE At this cor I set off 22° 29' S on the decl. arc and at 12<sup>h</sup> 06<sup>m</sup> p.m. l.m.t. observe the sun on the meridian the resulting latitude being 35° 54' N.

43.00 Top of ridge bears N.W. and S.E. bears rolling land, bears N.W. and S.E. descend abruptly rocky hilly land, bears N.W. and S.E.

54.00 Top of sand stone ledge, bears N and S. bears hilly land bears N. and S. descend abruptly over mountainous land bears N. and S.

60.50 Dry ravine course N.E. asc.

62.50 Top of sand spur bears N.E. and S.W. desc.

71.50 Dry ravine course N.E. asc.

79.00 Point of rocky spur bears N.E. and S.W. desc.

80.14 The cor of sec 16, 17 20 and 21, heretofore described. Land rolling hilly and mountainous - Soil sandy and stony 3<sup>rd</sup> and 4<sup>th</sup> rate. Timber juniper pine and cedar. Mountainous land. 26.00 chas.

N 0° 03' W between sec. 16 and 17

Descend N.W. slope over mountainous land through juniper pine and cedar timber and bunch grass.

91.50 Dry ravine course N.W. asc.

92.00 Top of spur bears N.E. and S.W. desc

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Schauins

BOOK 2591

- 37.00 Dry ravine Course S.W. asc.
- 38.00 Top of spur bears N.E. and S.W. desc.
- 40.00 Set an iron post 3 ft. long 1 in. in diam, 26 ins in the ground for  $\frac{1}{4}$  sec. cor marked on brass cap.  $1\frac{1}{2}$  S 17 m W half and 3.16 m E half, from which a cedar 12 ins. in diam bears  $71.59\frac{3}{4}^{\circ}$  E 160 lbs dist marked  $\frac{1}{4}$  S 16 B.T.
- A cedar 8 ins. in diam, bears  $71.77^{\circ}$  W 156 lbs dist. marked  $\frac{1}{4}$  S 17 B.T.
- 41.00 Foot of descent in head of ravine Course W. asc abruptly over sand stone ledges
- 50.30 Top of sand stone ledge 12 ft. high bears E. and W
- 65.00 Top of mesa bears E and W. descend abruptly rocky N slope
- 74.50 Sand stone cliff 20 ft. high bears NW. and S.E. desc abruptly
- 80.00 Set an iron post 3 ft. long 2 ins. in diam 24 ins. in the ground for cor of sec 8, 9, 16 and 17, marked on brass cap T 29 N. S 8 in NW. R 17 E. S 9 in N.E. S 16 in S.E. and S 17 in S.W. quadrants.
- Raise a mound of stone 2 ft. base,  $1\frac{1}{2}$  ft. high W. of cor.
- Pits impracticable.
- Land mountainous.
- Soil sandy and stony 3<sup>rd</sup> and 4<sup>th</sup> cats.
- Timber prairie pine and cedar.
- Mountainous land 80.00 chs.
- 
- N 89° 58' E on a random line bet. sec 9 and 16.
- 40.00 Set temp  $\frac{1}{4}$  sec. cor.
- 80.12 Intersect N and S line 8 lbs S of the cor of sec 9, 10, 15 and 16, heretofore described,
- Thence down
- S 89° 55' W on a true line bet. sec 9 and 16.
- Descend N.W. slope over rolling sandy land through scattering prairie pine and cedar timber and brush grass.
- 19.00 Bears rolling land bears N.E. and S.W. descend over

Chains

- mountainous land toward NE and SW
- 28.00 Dry ravine Course NW asc
- 33.50 Top of spur toward NW and SE, desc.
- 35.00 Dry ravine Course NW, asc.
- 40.06 Set an iron post 3 ft long 1 in in diam 26 ins in the ground for 4 sec. cov marked on base of 59 on N half and S 16 on S half from which,  
A pinion pine 14 ins. in diam toward N 31 1/4° E 67 lbs dist. marked 59 B.T.  
A pinion pine 12 ins. in diam. toward S 53 1/4° W 142 lbs. dist. marked 59 B.T.  
This cov. is on the crest of spur toward NW and SE, desc.
- 43.20 Dry ravine Course NW asc
- 45.00 Top of sandy spur toward NW and SE desc.
- 46.80 Dry ravine Course NW, asc.
- 49.00 Top of spur toward NW and SE, desc.
- 56.00 Dry ravine Course NW, asc.
- 59.00 Top of spur toward NE and SW, desc.
- 60.00 Dry ravine Course N, asc
- 65.50 Point of rocky spur 25 ft. above ravine toward NE and S, desc. steeply.
- 74.50 Dry ravine Course N, asc.
- 80.12 The cov. of sec. 8, 9, 16 and 17, heretofore described  
Land rolling and mountainous.  
Soil sandy and stony. 3<sup>rd</sup> and 4<sup>th</sup> rate.  
Timber pinion pine and cedar.

January 6<sup>th</sup> 1909

- 1909  
Jan 9<sup>th</sup> at 10<sup>h</sup> 37<sup>mn</sup> am. l.m.t. I set off. 36° 55' N. on the lat. arc. 22° 05 1/2' S on the decl. arc. and determine a meridian with the solar at the cov. of sec. 8, 9, 16 and 17, described heretofore.
- Thence I run  
N 0° 03' W for sec. 8 and 9  
Descend steep rocky NE slope on mountainous land through pinion pine and cedar timber
- 4.50 Dry ravine 20 ft. below cov. course NE asc.
  - 6.00 Top of spur toward NE and SW, desc. gradually.
  - 12.00 Begin abrupt descent.
  - 15.00 Dry ravine at foot of steep descent course NE, asc.
  - 19.00 Top of spur toward NE and SW, desc

Subdivision of T<sub>29</sub>N R<sub>17</sub>E

Chain

BOOK 2591

- 24.00 Dry ravine course N.E. asc.
- 27.00 Top of spur trail N.E. and S.W. desc.
- 40.00 The point for the  $\frac{1}{4}$  sec. cor falls in bed of dry ravine 100 lbs wide course N.W., where natural cause would insure its destruction therefore at.
- 39.00 Set an iron post, 3 ft. long 1 in in diam, 26 ins in the ground for witness cor. to the  $\frac{1}{4}$  sec. cor. marked on base cap T<sub>29</sub>N R<sub>17</sub>E 38 on W half. 39 on E half and W.C.  $\frac{1}{4}$  on N half.
- No trees suitable for witness trees within limits  
Dig pits 18 x 18 x 12 ins in N and S. of post 3 ft. dia and raise a mound of earth 3  $\frac{1}{2}$  ft. base 1  $\frac{1}{2}$  ft. high W. of cor.
- 47.00 Same ravine course N.E.
- 48.50 Same ravine 80 lbs wide 3 ft. deep. course N.W. are gradually  
over S.W. slope of spur
- 55.00 Top of sandy spur trail N.W. and S.E. desc.
- 63.50 Dry ravine course N.W. asc.
- 66.00 Top of spur trail N.W. and S.E. desc.
- 67.80 Dry ravine course S.W. ascend.
- 74.60 Sand stone ledge 20 ft. high trail N.E. and S.E.
- 79.20 Sand stone ledge 25 ft. high trail N.E. and S.W.
- 80.00 Set an iron post, 3 ft. long, 2 ins. in diam 24 ins. in the ground for cor. of sec. 4, 5-8 and 9. marked on base cap T<sub>29</sub>N S<sub>5</sub> in N.W. R<sub>17</sub>E S<sub>4</sub> in N.E. 39 in S.E. and 38 in S.W. quadrants, from which a pinion pine 10 ins. in diam. trail N<sub>78</sub>° E 150 lbs. dist, marked T<sub>29</sub>N R<sub>17</sub>E S<sub>4</sub> B.T.
- A cedar 8 ins. in diam trail S<sub>5</sub>° E 25 lbs. dist. marked T<sub>29</sub>N R<sub>17</sub>E S<sub>9</sub> B.T.
- No other trees available
- Dig pits 24 x 24 x 12 ins in sec. 5 and 8, 5  $\frac{1}{2}$  ft. dia and raise a mound of earth 4 ft. base 2 ft. high W. of cor.
- Land mountainous.
- Soil sandy and stony 3<sup>rd</sup> and 4<sup>th</sup> rate.
- Number pinion pine and cedar.
- Mountainous land 8000 chs.

N<sub>89</sub>° 55' E on a random line bet. sec. 4 and 9.



Subdivision of Np 29m, R17E

Chain

40.00	Set temp $\frac{1}{4}$ sec. cor.
80.10	Intersect N and S line 92. lks. N. of the witness cor. to the cor. of secs 3, 4, 9 and 10, heretofore described, from true point for cor. of secs. 3, 4, 9 and 10, Drun. S 79° 52' W. on a true line bet. secs. 4 and 9. In dry sand wash.
00.80	Leave sand wash course S.W. ascend S.E. slope over mountainous land through scattering pine and cedar timber and scattering bunch grass.
17.00	Point of spur trail N. desc.
3.60	Same ravine course N. ascend spur
15.50	Top of spur trail N. and S. desc.
19.00	Dry ravine course N.E. asc.
22.00	Top of spur trail N and S. desc.
26.50	Dry ravine course N. asc.
28.00	Top of spur trail N.W. and S.E. desc
32.80	Dry ravine course N.W. asc steeply
40.00	Set an iron post 3ft. long in ground 26 in. in the ground for $\frac{1}{4}$ sec. cor. mkd. on brass cap $\frac{1}{4}$ S 4 on. N half. and S 9. on S half. from which. A cedar 10 in in diam trail N 18° W 85 lks dit marked $\frac{1}{4}$ S 4 B.T.
	A cedar 4 in in diam trail S 38° E 35 lks dit marked $\frac{1}{4}$ S 9 B.T.
41.80	Top of ascent on E edge of mesa trail N.E. and S.W. leave mountainous land trail N.E. and S.W., enter rolling mesa land trail N.E. and S.W. slopes to W.
71.11	Depressure trail N and S. drains N. are gently E slope.
73.00	South edge of mesa on sandstone ledge 25 ft. high trail N.E. and S.W. leave rolling land trail N.E. and S.W. descend abrupt rocky S.W. slope of mesa over mountainous land trail N.E. and S.W.
80.10	The cor. of secs. 4, 5, 8 and 9, heretofore described. Land rolling and mountainous. Soil sandy and stony 3 <sup>rd</sup> and 4 <sup>th</sup> cat. Timber pine and cedar Mountainous land 48.10 chs.
40.00	No. 03 W bet. secs. 4 and 5, on a random line, Set temp $\frac{1}{4}$ sec. cor.

Subdivision of Twp 29 N. R17 E

Chowin

BOOK 2591

- 80.00 Intersect N. line of Twp 32 l. 589°53'W of the cor. of sec 4, 5, 32 and 33, recently estab. by me and described in Exterior Book "P" Thence I run  
S 0° 11' W. on a true line bet. sec. 4 and 5  
Descend S.W. slope over hilly sandy land through sage brush and scattering bunch grass
- 8.55 Wire fence bear N.E and S.W
- 9.05 Leave sage brush and bunch grass, enter cultivated land bear N.E and S.W.
- 9.25 Foot of descent leave hilly land bear N.E and S.W enter level land bear N.E and S.W.
- 17.00 Dry ravine, course West
- 21.70 Wire fence bear N.W. and S.E., leave level land bear N.W. and S.E. enter hilly land bear N.W. and S.E. ascend gradually over N.E slope of ridge
- 28.20 Road to Ora's Big bear N.E and S.W.
- 35.00 Top of sand ridge bear N.W. and S.E. desc.
- 40.05 Set an iron post 3ft. long, 1 in. in diam, 12 in. in the ground for 1/4 sec. cor. marked on base Cop. 1/4 S 1/4 NW half and S 4 on E half.  
Dig pits 18x18x12 in N and S of post. 3ft dist and raise a mound of earth 3 1/2 ft. base 1 1/2 ft. high. W. of cor.
- 40.50 Dry ravine course NW. asc.
- 66.00 Top ascend on N. edge of mesa, bear N.W. and S.E. Leave hilly land bear N.W. and S.E. enter rolling stony land. Cedar and pinon pine timber bear N.W. and S.E.
- 68.50 Top of sand stone ledge 20 ft high bear N.W. and S.E. desc gradually over S slope.
- 76.70 S. edge of mesa bear N.E and S.W. leave rolling stony land bear N.E and S.W., descend steep rocky S slope over mountainous land bear N.E and S.W.
- 80.05 the cor. of sec 4, 5, 8 and 9, heretofore described. Land level rolling hilly and mountainous. Soil sandy and stony 2<sup>nd</sup>, 3<sup>rd</sup> and 4<sup>th</sup> rate. Timber pinon pine and cedar. Mountainous land 3.30 chs.

NOTE. Clouds obscure the sun at noon today rendering an observation for latitude impossible with the solar.

January 9<sup>th</sup> 1909

Chas L. Shumway

This 1<sup>st</sup> day of January 1909. I change the duties of Lafayette Jennings, from those of Assessor to those of Chairman, and the duties of Chas L. Shumway from those of Warrantman, to those of Assessor. No officer authorized to administer oaths other than myself being available, without great inconvenience delay and expense, I administer the required preliminary and final oaths.

Sidney E. Blush

U.S. Examiner of Surveys

Jan 1<sup>st</sup> 1909. At 8<sup>h</sup> 03<sup>m</sup> a.m. L.M.L. - I set off 35° 51 1/2' N. on the lat. arc. 32° 57 1/2' S. on the decl. arc. and determined a meridian with the solar at the stand cov. of sec. 31 and 32 on the S. bdy. of the Twp. Three Iron No 0° 03' W. lat. sec 31 and 32. recently estab. by me & described in Standard Book C

ascend S.W. slope of sand ridge over hilly sandy land through sage and greasewood brush undergrowth and bunch grass

- 1.50 Top of ridge bear N.W. and S.E. desc. N.E. slope.
- 16.00 Dry ravine course N.W. asc.
- 22.00 Top of ridge bear N.W. and S.E. desc.
- 27.50 Dry ravine 80 lbs. wide 5 ft. deep course W. asc.
- 34.00 Top of sand ridge bears N.E. and S.W. desc.
- 40.00 Set an iron post 3 ft. long 1 in. in diam. 26 ins. in the ground for 1/4 sec. cov. marked on brass cap. 1/4 S 31 on W. half and S 32 on E. half. Dig pits 18x18x12 ins. N and S. of post 3 ft. dia. and raise a mound of earth 3 1/2 ft. base, 1 1/2 ft. high. W. of cov.
- 44.50 Dry ravine 30 lbs. wide, 4 ft. deep course S.W. asc.
- 60.00 Leave hilly land bears N.E. and S.W. Enter stony mountainous land bear N.E. and S.W. ascend abrupt S. slope of mesa.
- 68.30 Top of ascent on S. edge of mesa bear N.E. and S.W. leave stony mountainous land bear N.E. and S.W. Enter level sandy land bear N.E. and S.W.
- 71.30 North edge of mesa on cliff 15 ft. high bear N.E. and S.W. leave level sandy land bear N.E. and S.W. enter stony mountainous land and cedar timber bear N.E. and S.W. descend abruptly over N. slope of mesa
- 80.00 Set an iron post 3 ft. long 2 ins. in diam. 24 ins. in the ground for cov. of sec. 29, 30, 31 and 32. marked on brass cap. T 29 N S 30 in N.W. R 17 E S 29 in N.E. S 32 in S.E. and S 31 in S.W. quadrants. No trees suitable for bearing trees available. Raise a mound of stone 2 ft. base, 1 1/2 ft. high. W. of cov. Pits impracticable. Land hilly and mountainous. Soil sandy and stony 3<sup>rd</sup> and 4<sup>th</sup> rates.

BOOK 2591

Timber Cedar  
Mountain and land 17.00 chs.

89°59'E on a random line bet. sec. 29 and 32.  
40.00 Sub. temp. 1/4 sec. cor.  
80.20 Intersect N and S. line 3 lks. S. of the cor. of sec. 28.  
29, 32 and 33, <sup>heretofore described</sup> Thence Drum  
West on a true line bet. sec. 29 and 32.

Descend N.W. slope over rolling sandy mesa land through scattering cedar timber and bunch grass.  
24.75 West edge of mesa, leave rolling sandy land toward N.E. and S.W. enter stony mountainous land toward N.E. and S.W. descend abruptly over N.W. slope of mesa.

40.10 Set an iron post 3 ft. long 1 in. in diam 26 in. in the ground for 1/4 sec. cor. marked on brass Cap 1/4 329 on N half and 332 on S half.  
No trees suitable for bearing trees available.

Dig pits 18x18x12 in. E and W. of post 3 ft. deep and raise a mound of earth 3 1/2 ft. base, 1 1/2 ft. high. N. of cor.  
45.10 Top of sand stone ledge 25 ft. high toward N. and S. desc.  
80.20 The cor. of sec. 29, 30, 31 and 32, heretofore described.  
Land rolling and mountainous.

Soil sandy and stony 3<sup>rd</sup> and 4<sup>th</sup> rate.  
Timber Cedar.

Mountainous land 55.45 chs.

N 89°59'W. on a random line bet. sec. 30 and 31  
40.00 Sub. temp. 1/4 sec. cor.  
79.80 Intersect 4<sup>th</sup> Guide Meridian East, 1.5 lks. N. of the cor. recently re-estab. by me & described in Standard Book "B" of sec. 25, 30, 31 and 36. Thence Drum.

N 89°59'E. on a true line bet. sec. 30 and 31  
Ascend N.W. slope of sand ridge over hilly sandy land through sage and greasewood bush undergrowth  
12.00 Top of ridge toward N.E. and S.W. desc.  
27.00 Dry ravine course S.W. asc.  
32.00 Top of sand ridge toward N.E. and S.W. desc. S.E. slope  
39.80 The point for the 1/4 sec. cor. falls in the bottom of a dry sand wash, 100 lks. wide course S.W. where natural courses would insure the destruction of the cor. therefore d.

Schaus

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- 37.80 Set an iron post 3 ft. long 1 in. in diam. 26 ins. in the ground for witness cor. to the  $\frac{1}{4}$  sec. cor. marked on brass cap T29 N, R17 E. S 30 on N. half S 31 on S half. WC  $\frac{1}{4}$  on E half. Dig pits 18 x 18 x 12 ins. E. and W. of post. 3 ft. dist and raise a mound of earth 3  $\frac{1}{2}$  ft. base  $1\frac{1}{2}$  ft. high N. of cor.
- 39.50 Center of sand wash. Course S.W. asc.
- 41.00 Road from Oraibi Ariz to Keams Canyon Ariz. Course N.E. and S.W.
- 60.00 Top of sand ridge toward N.W. and S.E.
- 68.00 Dry ravine Course N. toward hilly land toward N.E. and S.W. ascend N.W. slope over mountainous land toward N.E. and S.W.
- 72.50 Top of spur toward N.E. and S.W. desc.
- 74.00 Dry ravine Course N. asc
- 79.80 The cor. of sec 29 30 31 and 32, heretofore described. Land hilly and mountainous. Soil sandy and stony 3<sup>rd</sup> and 4<sup>th</sup> rate. No timber. Mountainous land. 1180 chs.
- NOTE At this cor. I set off  $22^{\circ} 59' S$  on the decl. arc. and at  $12^{\circ} 08\frac{1}{2}'$  from. I observed the sun on the meridian and obtained on the lat. arc a reading of  $35^{\circ} 52\frac{1}{2}' N$ .
- 
- No. 03 W. lat. Decs 29 and 30.
- Descend N. slope over mountainous land. through scattering cedar timber and bunch grass.
- 1.00 Dry ravine 20 lbs. wide 3 ft. deep. Course N.W. toward timber and mountainous land toward N.E. and S.W. Center hilly land toward East S.W.
- 8.50 Road from Oraibi Ariz. to Keams Canyon Ariz. toward N.E. and S.W.
- 11.50 Dry sand wash 80 lbs. wide 6 ft. deep course W. asc. S. slope.
- 21.00 Top of sand ridge toward N.E. and S.W. desc. N.W. slope.
- 32.00 Dry ravine Course S.W. ascend S.E. slope through scattering cedar timber toward N.E. and S.W.
- 40.00 Set an iron post 3 ft. long 1 in. in diam. 26 ins. in the ground for  $\frac{1}{2}$  sec. cor. marked on brass cap.  $\frac{1}{4}$  S 30 on W. half.

BOOK 2591

- and S 29 on E half. from which.
- A cedar 10 ins. in diam trans N 76° E 46 lbs. dist. marked  $\frac{1}{4}$  S 29 B.T.
- A cedar 14 ins. in diam trans S 1° 15' W 100 lbs. dist. marked  $\frac{1}{2}$  S 30 B.T.
- 50.00 Top of ridge trans N.E. and S.W. desc. N.W. slope.
- 55.00 Dry ravine at foot of mesa course S.W. leads hilly land trans N.E. and S.W. ascend steep rocky S. slope of mesa over mountainous land trans N.E. and S.W.
- 57.00 Sand stone ledge 20 ft. high trans E and W.
- 59.00 Top of spur trans N.E. and S.W. desc.
- 67.00 Dry ravine course S.W. asc. abruptly.
- 69.00 Top of spur trans N.E. and S.W. desc.
- 73.00 Top of descent in depression trans N.E. and S.W. drains to S.W. ascend abruptly over cliffs.
- 75.00 Top of cliff S edge of mesa trans E and W. leads mountainous land, trans E and W enter rolling stony mesa land trans E and W.
- 80.00 Set an iron post 2 ft. long 2 ins. in diam 24 ins in the ground from cor. of sec. 19, 20, 29 and 30. marked on base Exp. T 29 N. S 19 in N.W. R 17 E S 20 in N.E. S 29 in S.E. and S 30 in S.W. quadrant.
- No trees suitable for bearing trees within limits.
- Raise a mound of stone 2 ft. base 1 1/2 ft. high W. of cor. Pits impracticable.
- Land hilly rolling and mountainous.
- Soil sandy and stony 3<sup>rd</sup> and 4<sup>th</sup> rates
- Timber pinion pine and cedars.
- Mountainous land. 21.00 Chs.
- 
- East on a random line bet. sec. 20 and 29
- 40.00 Set temp  $\frac{1}{4}$  sec. cor.
- 80.22 Intersect N and S. line 8 lbs. N. of the cor. of sec. 20, 21 28 and 29, heretofore described.
- Thence down
- N 89° 57' W on a true line bet. sec. 20 and 29.
- Descend N.W. slope over mountainous land through scattering pinion pine and cedar timber and bunch grass.
- 00.90 Dry ravine course S. ascend abruptly E slope.
- 16.00 Top of ascent on E edge of mesa trans N.E. and S.W.

## Subdivision of Twp 29 N. R 17 E

Chains

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- Clear mountainous land bear N.E. and S.W., enter rolling mesa land bear N.E. and S.W. ascend gradually.
- 33.00 Top of low ridge bear N. and S. desc. gently over W slope
- 40.11 Saw iron post 3 ft. long 1 1/2 in diam 26 ins. in the ground for 1/4 sec. cor. marked on bear cap 1/4 S 20 on N half and S 29 on S half, found with ch.
- A cedar 12 ins. in diam bear N 75° W 133 lbs. dist. marked 1/4 S 20 B.T.
- A cedar 8 ins. in diam. bear S 47 1/2° W 82 lbs dist marked 1/4 S 29, B.T.
- 78.20 Sandstone ledge 10 ft high. bear N and S desc.
- 80.22 The cor of sec. 19, 20, 29 and 30, heretofore described. Land rolling broken and mountainous Soil sandy and stony 3<sup>rd</sup> and 4<sup>th</sup> rate, Ponderosa pinion pine and cedar, mountainous land. 16,00 lbs.

January 1<sup>st</sup> 1909

1909  
January 8<sup>th</sup> At 8<sup>h</sup> 06<sup>m</sup> a.m. l.m. - Dr. off.  
35° 53' N on the lat. arc. 22° 12' S with the decl. arc and determine a meridian with the solar at the cor of sec 19, 20, 29 and 30. heretofore described.

Thence Drun

S 89° 59' W on a random line bet. sec. 19 and 30.

40.00 Sec. temp 1/4 sec. cor.

79.88 Intersect the 4<sup>th</sup> Guide Meridian East. 18 lbs N. of the cor. of sec 19, 24, 25 and 30, recently estab. by me and described in Standard Book "B"Thence Drun  
N 79° 51' E on a true line bet. sec. 19 and 30

Ascend N.W. slope over stony mountainous land through scattering scrub cedar and pinion pine timber.

11.90 Top of sand stone cliff 20 ft high. on the edge of mesa, clear mountainous land bear N.E. and S.W. enter rolling mesa land bear N.E. and S.W. ascend gradually N.W. slope

17.00 Top of mesa bear N.E. and S.W. descend gradually over S.E. slope.

32.50 East edge of mesa bear N.E. and S.W. clear rolling land bear N.E. and S.W. descend abruptly rocky S.E. slope of mesa over mountainous land

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- 39.88 Set an iron post 3 ft. long, 1 in. in diam. 26 ins. in the ground for  $\frac{1}{4}$  sec. cor., marked on base cap.  $\frac{1}{4}$  S 19 on W half and S 20 on E half. from which  
A pinion pine 10 ins. in diam., base  $N 2\frac{1}{4}^{\circ} W 87$  lbs. dist., marked  $\frac{1}{4}$  S 19 B.T.  
No other trees within the prescribed limits  
Raised mound of stone 2 ft. base,  $1\frac{1}{2}$  ft. high 70 yds.  
Pits impracticable  
This cor. is situated at the foot of sandstone cliff 20 ft. high; base NE and SW.
- 45.00 Head of dry ravine course SE. ascend SW. slope
- 53.65 Top of spur base NW. and SE. leave timber base NE and SW. descend NE. slope
- 62.00 Dry sand wash. 75 lbs. wide at foot of descent. Course  $S 10^{\circ} E$ . ascend abrupt rocky W slope of mesa.
- 78.38 Top of cliffs on W. edge of mesa base NW. and SE. leave mountainous land base NW. and SE. enter rolling mesa land covered with scattering scrub cedar timber base NW. and SE.
- 79.88 The cor. of secs. 19, 20, 29 and 30, heretofore described. Land rolling and mountainous.  
Soil sandy and stony 3<sup>rd</sup> and 4<sup>th</sup> rate.  
Timber scattering pinion pine and scrub cedar.  
Mountainous land. 57.63 chs.

$N 6^{\circ} 03' W$  bet. sec. 19 and 20.

- Over rolling and broken mesa land, through scattering pinion pine and scrub cedar timber
- 6.50 Sandstone ledge 8 ft. high base NE and SW
- 12.75 Sandstone ledge 10 ft. high base E. and W. ascend gradually.
- 40.00 Set an iron post. 3 ft. long, 1 in. in diam., 26 ins. in the ground for  $\frac{1}{4}$  sec. cor. subd. on base cap.  $\frac{1}{4}$  S 19 on W half and S 20 on E half, from which  
A cedar 10 ins. in diam. base  $S 40\frac{1}{2}^{\circ} E 137$  lbs. dist., marked  $\frac{1}{4}$  S 20 B.T.  
A cedar 4 ins. in diam. base  $N 87\frac{1}{2}^{\circ} W 196$  lbs. dist., marked  $\frac{1}{4}$  S 19 B.T.



Chain

- 44.00 Top of mud trail E and W. desc. gradually over N. slope
- 80.00 Set an iron post 3 ft. long 2 ins in diam 24 ins in the ground for cor. of sec. 17, 18, 19 and 20 marked on base cap T<sub>29</sub>N, S<sub>18</sub> in N.W. T<sub>17</sub>E S<sub>17</sub> in N.E. S<sub>20</sub> in S.E. and S<sub>19</sub> in S.W. quadrants from which. A cedar 12 ins in diam, base N<sub>50</sub>°E 99 lbs. dist marked T<sub>29</sub>N, R<sub>17</sub>E. S<sub>17</sub> B.T.
- A cedar 8 ins in diam, base S<sub>30</sub><sup>3</sup>/<sub>4</sub>°E 143 lbs. dist marked T<sub>29</sub>N, R<sub>17</sub>E S<sub>20</sub> B.T.
- A prairie pine 8 ins in diam, base S<sub>10</sub><sup>1</sup>/<sub>2</sub>°W 93 lbs. dist, marked T<sub>29</sub>N R<sub>17</sub>E S<sub>19</sub> B.T.
- A prairie pine 8 ins in diam, base N<sub>37</sub><sup>1</sup>/<sub>4</sub>°W 123 lbs. dist, marked T<sub>29</sub>N R<sub>17</sub>E S<sub>18</sub> B.T.
- Land rolling and broken
- Soil sandy and stony, 3<sup>rd</sup> and 4<sup>th</sup> rate.
- Timber prairie pine and cedar
- 
- S<sub>89</sub><sup>5</sup>/<sub>7</sub>°E on a random line bet. sec. 17 and 20.
- 40.00 Set temp 4 sec. cor.
- 80.18 Intersect N and S line 12 lbs. N. of the cor. of sec. 16, 17, 20 and 21, hereinbefore described, Thence run
- N<sub>89</sub><sup>5</sup>/<sub>7</sub>°W on a true line bet. sec. 17 and 20. Descend N.W. slope of spur over mountainous land through scattering prairie pine and cedar timber.
- 5.20 Dry ravine course N. are.
- 11.30 Top of spur base N.E. and S.W. desc. steeply.
- 18.75 Top of sand stone ledge 20 ft. high base N. and S. desc.
- 23.00 Depressions base N and S. drains N. are.
- 31.00 Top of sand stone ledge 25 ft. high base N.W. and S.E. on E edge of mesa, base mountainous land base N.W. and S.E. enter rolling mesa land base N.E. and S.W.
- 35.00 West edge of point of mud trail base N.E. and S.W., base rolling mesa land base N.E. and S.W. descend steeply over N.W. slope over mountainous land base N.E. and S.W.
- 37.50 Dry ravine course N.W. are steeply.
- 39.00 Top of spur base N.W. and S.E. desc.
- 40.09 Set an iron post 3 ft. long 1 in in diam 26 ins in the ground for the sec. cor marked on base cap 1/4 S<sub>17</sub> in

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- on N. half and S 20 on S half.
- No trees suitable for bearing trees within limits
- Dig pits 18 x 18 x 12 in and W. of post 3 ft. dia and raise a mound of earth 3 1/2 ft. base 1 1/2 ft. high. N. of cor.
- NOTE At this cor. I set off  $22^{\circ} 13 \frac{1}{2}'$  S on the decl. arc. and at 12<sup>h</sup> 07<sup>m</sup> p.m. I set observe the sun on the meridian, and obtain on the lat. arc. a reading of  $35^{\circ} 54'$  N. for the lat of this station.
- 47.50 Dry ravine Course N. arc. steep E slope of spur.
- 60.00 Top of spur bears N.E. and S.W. due.
- 65.50 Dry ravine Course N.E. ascend sand stone cliffs
- 71.90 Top of sand stone cliffs. on East edge of mesa leave mountainous land bears N.W. and S.E. enter rolling mesa land bears N.W. and S.E.
- 80.18 The cor. of sec. 17, 18, 19 and 20, heretofore described. Land rolling and mountainous. Soil sandy and stony 3<sup>rd</sup> and 4<sup>th</sup> rate. Timber pinion pine and cedar mountainous land. 67.90 chs.
- 
- 89<sup>o</sup> 51' W on a random line bet. sec. 18 and 19,
- 40.00 Set temp. 1/4 sec. cor.
- 79.82 Intersect the 4<sup>th</sup> Guide Meridian East. 3 chs. N. of the cor. of sec. 13, 18, 19 and 24, <sup>recently estab. by me and described in Standard Book "C"</sup> Thence I run
- N 79<sup>o</sup> 50' E on a true line bet. sec. 18 and 19, Ascend N.W. slope of mesa on stony mountainous land.
- 3.60 Top of arcut on. Wedge of point of mesa bears N.E. and S.W. leave mountainous land bears N.E. and S.W. enter rolling mesa land covered with scattering scrub cedar timber bears N.E. and S.W.
- 7.20 East edge of point of mesa bears N.E. and S.W. leave rolling land bears N.E. and S.W. desc. S.E. slope on stony mountainous land bears N.E. and S.W.
- 33.60 Point of spur bears S.W.
- 39.82 Set an iron post 3 ft. long. in in diam. 2 1/2 in in the ground for 1/4 sec. cor marked on base exp 1/4 S 18 on N. half. and S 19 on S half. from which.

Chassis

47

- Cedar 4 ins in diam beam  $N 32 \frac{3}{4}^{\circ} W$  83 lbs dist marked  $\frac{1}{4}$  S 18 B.T.
- Cedar 16 ins. in diam. beam  $S 19 \frac{3}{4}^{\circ} E$  80 lbs. dist. marked  $\frac{1}{4}$  S 19 B.T.
- 56.40 Sand stone ledge 25 ft. high beam N.E. and S.W. ab. foot of descent on N. face of mesa ascend abruptly over stony land. ridges and ravines.
- 78.30 Top of ascent on W. edge of mesa beam N.E. and S.W. leave mountainous land beam N.E. and S.W., enter rolling mesa land beam N.E. and S.W.
- 79.82 The cor. of sec. 17, 18, 19 and 20, heretofore described. Land rolling and mountainous. Soil sandy and stony 3<sup>rd</sup> and 4<sup>th</sup> rate. Timber scattering pinon pine and cedar Mountainous land 74-70 Ch.
- 
- No 03 W. lat. sec 17 and 18.
- Over rolling sandy mesa land through scattering scrub. pinon pine and cedar timber.
- 4.90 North edge of mesa beam N.E. and S.W. leave rolling land beam N.E. and S.W. descend abrupt rocky N. slope of mesa over mountainous land beam N.E. and S.W. leave timber beam N.E. and S.W.
- 17.00 Top of rocky spur 30 ft. high beam E. and W.
- 28.30 Foot of abrupt descent. leave mountainous land beam E and W. enter hilly land beam E. and W. desc. gradually.
- 40.00 Set an iron post. 3 ft. long 1 in in diam 26 ins. in the ground for  $\frac{1}{4}$  sec. cor. marked on beam cap. to S 18 on W. half and S 17 on E half, Dig pits 18 x 18 x 12 ins N. and S. of post. 3 ft. dist. and raise a mound of earth  $3 \frac{1}{2}$  ft. base,  $1 \frac{1}{2}$  ft. high. W of cor.
- 47.00 Dry ravine course N.W. leave hilly land beam N.W. and S.E., ascend steep rocky S.W. slope over mountainous land beam N.W. and S.E.
- 67.00 Sand stone ledge 5 ft. high beam E. and W.
- 71.50 Top of spur beam N.E. and S.W., enter cedar timber beam N.E. and S.W. desc N.W. slope.
- 72.30 Dry ravine 30 lbs wide 3 ft. deep course S.W.

Subdivision of T<sub>29</sub>N. R<sub>17</sub>E

Chains

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- 75.00 Same ravine 25 lbs wide banks 4 ft high Course S.E.
- 77.00 The same ravine 40 lbs wide banks 4 ft high Course S.W. ascend S. slope.
- 80.00 Set an iron post 3 ft long 2 ins in diam 24 ins in the ground for cor. of sec 7, 8, 17 and 18. marked on Brass Cap. T<sub>29</sub>N. S<sub>7</sub> in N.W. R<sub>17</sub>E S<sub>8</sub> in N.E. S<sub>17</sub> in S.E. and S<sub>18</sub> in S.W. quadrant. from which a cedar 8 ins in diam. bears N 51° E. 43 lbs. dist marked T<sub>29</sub>N. R<sub>17</sub>E S<sub>8</sub> B.T.
- A cedar 15 ins. in diam. bears S 1° E 266 lbs dist marked T<sub>29</sub>N. R<sub>17</sub>E S<sub>17</sub> B.T.
- A cedar 10 ins in diam, bears N 29° W 225 lbs. dist marked T<sub>29</sub>N. R<sub>17</sub>E S<sub>7</sub> B.T.
- No other trees available.
- Dign<sup>ty</sup> post 36 x 36 x 12 ins in sec 18, 5½ ft dist and raise a mound of earth 4 ft base, 2 ft high. W. of cor.
- Land rolling hilly and mountainous.
- Soil sandy and stony 3<sup>rd</sup> and 4<sup>th</sup> rate.
- Numbers juniper pine and cedar
- Mountainous land 5640 Chs.

Jan. 8-1909

- January 9<sup>th</sup> 1909 At 8 h 37<sup>m</sup> am. L.M.L. Dist. off. 35° 55' N. on the lat. arc. 22° 05' S on the decl. arc. and determined a meridian with the solar ab. the cor. of sec. 7, 8, 17, and 18, above described,
- Thence Drive
- S 89° 52' E on a random line bet. sec 8 and 17.
- 40.00 Set temp. 4 sec. Cor.
- 80.24 Intersect N and S line 12 lbs. S. of the cor. of sec 8, 9, 16 and 17, hereinbefore described,
- Thence Drive
- N 79° 57' W on a true line bet. sec 8 and 17.
- Around N.E. slope of mesa on stony mountainous land through scattering juniper pine and cedar timber
- 15.00 Top of sand stone bluffs 20 ft high along East edge of mesa bears N and S. bears mountainous land bears N and S. enter rolling sandy mesa land bears N and S.
- 25.00 Leave timber bears N and S.
- 40.12 Set an iron post 3 ft long 1.5 ins in diam. 26 ins in

Chains

49

- 73.00 the ground for  $\frac{1}{4}$  sec. cor marked on brass cap  $\frac{1}{4}$  S 8  
 on N. half and S 17 on S half; <sup>Dig pits 18x18x12 in E-W. of post</sup> 3 ft. dist. and raise a mound of earth  
<sup>3 1/2 ft. base 1 1/2 ft. high N. of cor.</sup>  
 With edge of mead. lean rolling land bears N.E. and  
 S.W. descend abrupt rocky S.W. slope over mountainous  
 land through scattering scrub cedar and pine  
 pine timber bears N.E. and S.W.
- 80.24 The cor. of secs. 7, 8, 17 and 18, heretofore described.  
 Land rolling and mountainous.  
 Soil sandy and stony 3<sup>rd</sup> and 4<sup>th</sup> rate.  
 Timber mainly pine and cedar.

January 9<sup>th</sup> 1909.

1909  
 January 11<sup>th</sup> 1909, Ch. 8<sup>h</sup> 07<sup>m</sup> am. l.m.l. & set off  $35^{\circ}55'41''$   
 on the lat. arc.  $21^{\circ}46'18''$  on the decl. arc and determine  
 a meridian with the solar ab. the cor. of secs. 7, 8, 17  
 and 18, heretofore described,  
 Thence I run

- 40.00 S  $89^{\circ}50'W$  on a random line bet. Secs. 7 and 18.  
 Set temp  $\frac{1}{4}$  sec. cor.
- 79.60 Intersect the 4<sup>th</sup> Guide Meridian E. 2 lks. N. of the  
 cor. of secs. 7, 12, 13 and 18, recently estab. by me and  
 described in Standard Book "B"  
 Thence I run  
 N  $89^{\circ}49'E$  on a true line bet. secs. 7 and 18.  
 Over rolling sandy cultivated land.
- 8.15 Lean cultivated land bears N. and S. enters bunch grass N and S.
- 9.00 Lean rolling land bears N.W. and S.E. at foot of mead.  
 ascend S.W. slope over mountainous land bears N.W.  
 and S.E..
- 15.65 Top of rocky spur bears N and S. desc.
- 21.10 Dry ravine course S.W. asc.
- 27.15 Top of spur bears N.E. and S.W. desc.
- 39.60 The point for the  $\frac{1}{4}$  sec. cor falls in the bottom of dry  
 ravine where natural cause would insure the  
 destruction of the cor. therefore at
- 38.60 Set an iron post, 3 ft. long 1 in in diam 26 ins. in  
 the ground for witness cor. to the  $\frac{1}{4}$  sec. cor marked  
 on brass cap T<sub>29</sub>N R<sub>17</sub>E. S 7 on N half S 18 on S half  
 N.C.  $\frac{1}{4}$  on E half.  
 Raise a mound of stone 2 ft. base, 1 1/2 ft high. N.  
 of cor. Pits impracticable

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- 39.60 Dry ravine course S.W. asc.
- 43.10 Top of spur beam N.E. and S.W. desc.
- 48.10 Dry ravine course S.W. asc.
- 55.65 Top of spur beam N.E. and S.W. desc.
- 63.10 Dry ravine course S.W. asc.
- 64.50 Top of spur beam N.E. and S.W. enter scattering cedar timber N. and S. desc.
- 70.50 Dry ravine course S.W. asc.
- 78.00 Top of spur beam N.E. and S.W. desc.
- 79.60 The cor. of sec 7, 8, 17 and 18, heretofore described.  
Land rolling and mountainous.  
Soil sandy and stony 3<sup>rd</sup> and 4<sup>th</sup> rate.  
Timber scattering cedar.  
Mountainous land 70.60 chs.

N<sup>o</sup> 03' W. bet. sec 7 and 8.

Ascend S.E. slope of mesa over stony mountainous land through scattering pine and cedar timber.

- 18.25 Top of ascent on S edge of mesa beam E. and W. Leave mountainous land beam E and W. enter rolling mesa land beam E and W.

- 25.00 North edge of mesa. beam rolling land beam E and W. descend abrupt N.E. slope over mountainous land beam E and N.W. Leave timber beam E and W.

- 40.00 Set an iron post. 3ft. long. 1 in in diam. 26 ins. in the ground for 4 sec. cor. marked on brass cap 4 S 70 W half and S 8 on E half.

Base a mound of stone 2 ft base 1 1/4 ft high W. of cor pits impracticable.

- 57.00 Sand stone ledge 40 ft high beam N.E. and S.W. desc.

- 71.00 Foot of descent between ledges beam N.E. and S.W. asc. ledge 15 ft high.

- 75.00 Top of ledge beam N.E. and S.W. desc.

- 80.00 Set an iron post. 3ft. long 2 in. in diam. 24 ins. in the ground for cor. of sec 5, 6, 7 and 8. marked on brass cap T 29 N 86 in N.W., R 17 E 35 in N.E., S 8 in S.E. and S 7 in S.W. quadrants.

Dig pits 18x18x12 ins in each. rec. 5 1/2 ft. dia and

raise a mound of earth 4 ft. base, 2 ft. high W. of cor.  
 Land rolling and mountainous.  
 Soil sandy and stony 3<sup>rd</sup> and 4<sup>th</sup> rate.  
 Timber scattering scrub cedar.  
 Mountainous land 7325 - Chas.

NOTE

At this cor. Det. off.  $21^{\circ}47\frac{1}{2}'S$  on the decl. arc and at 12<sup>h</sup> 07 m. p.m. limb observed the sun on the meridian, the resulting latitude being  $35^{\circ}56' N$ .

- 40.00 S 89° 57' E on a random line bet. recs 5 and 8  
 Det. temp. ¼ sec. cor.
- 80.22 Intersect n. and s. line 3 hrs S. of the cor. of recs.  
 4, 5, 8, and 9, heretofore described,  
 Thence down  
 N 89° 58' W. on a true line bet. recs 5 and 8.  
 Ascend S.E. slope of mesa over stony mountainous  
 land through scattering cedar timber
- 2.50 Top of mesa bear N.E. and S.W. leave mountainous  
 land bear N.E. and S.W. enter rolling land bear  
 N.E. and S.W.
- 7.30 E edge of mesa bear N.W. and S.E. leave rolling  
 land and timber bear N.W. and S.E., descend  
 abruptly S.W. slope over mountainous land bear  
 N.W. and S.E.
- 19.00 Dry ravine course S.W. asc.
- 21.50 Top of spur bear N.E. and S.W. desc.
- 24.50 Dry ravine course S.W. asc.
- 27.00 Top of spur bear N.E. and S.W. desc.
- 28.60 Sandstone ledge 4 ft. high bear N.E. and S.W.
- 30.00 Dry ravine course S.W. asc.
- 33.00 Top of rocky spur 20 ft. above ravine bear N.E. and  
 S.W. desc.
- 40.11 Set an iron post 3 ft. long 1 in. in diam. 26 ins  
 in the ground. for ¼ sec. cor. marked on brass cap.  
 1455 on N half and 58 on S. half.  
 Dig pits 18x18x12 ins. S and W. of post 3 ft. deep  
 and raise a mound of earth 3½ ft. base 1½  
 ft. high N. of cor.
- 41.00 Leave mountainous land bear N.W. and S.E.  
 enter rolling land bear N.W. and S.E.

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- 41.50 Enter Cultivated field. bears N.W. and S.E. extends N.W. 10 chs and S.E. 15 chs.
- 52.00 Bears cultivated field bears N.W. 8 chs and S.E. 10 chs.
- 55.00 Dry ravine 25 chs. wide 3 ft. deep course N.W. Bears rolling land bears N.W. and S.E., ascend N.E. slope of spur over mountainous land bears N.W. and S.E.
- 67.00 Top of spur bears N.W. and S.E. desc.
- 74.00 Dry ravine course N. asc.
- 76.00 Top of spur bears N. and S. desc.
- 80.22 The cor. of secs. 5, 6, 7 and 8, heretofore described. Land rolling and mountainous. Soil sandy and stony 3<sup>rd</sup> and 4<sup>th</sup> rate. Timber Cedar  
Mountainous land 65.42 Chs.
- 
- 40.00 S 89° 49' W on a random line bet. secs 6 and 7 Set temp 4 sec. cor.
- 79.58 Intersect the 4<sup>th</sup> Guide Meridian East. 10 chs. S of the cor. of secs. 1, 6, 7 and 12, and described in <sup>recently estab. by me</sup> Standard Book "C"  
Thence I run
- N 89° 53' E on a true line bet. secs 6 and 7, Descend S.E. slope over rolling sandy cultivated land.
- 8.00 Bears cultivated land bears N.E. and S.W. enter sage and greasewood brush bears N.E. and S.W.
- 38.46 Right bank of the Crabi Wash. 25 ft. high bears N.E. and S.W.
- 39.58 The point for the 4 sec cor falls in the bottom of wash. therefore I continue my line
- 41.23 Left bank of the Crabi Wash 25 ft. high bears N.E. and S.W., enter level land bears N.E. and S.W.
- 41.58 Set an iron post 3 ft. long, 1 in in diam, 26 ins. in the ground for Witness Cor. to the 4 sec. cor marked on base Cap T 29 N R 17 E S 6 on N half S 7 on S half W C 4 on W half. Dig pits 18x18x12 ins E and W. of post. 3 ft. dia



- and raise a mound of earth  $3\frac{1}{2}$  ft base,  $1\frac{1}{2}$  ft high N of cor
- 63.50 Road to Oraibi Ariz bears N.E. and S.W.
- 70.00 Leave level land bears N. and S. ascend N.W. slope over mountainous land bears N.E. and S.W.
- 79.58 The cor. of secs. 5, 6, 7 and 8, herebefore described  
Land level rolling and mountainous  
Soil sandy and adobe 2<sup>nd</sup> 3<sup>rd</sup> and 4<sup>th</sup> rate.  
No timber  
Mountainous 9.58 chs.
- 
- N $0^{\circ}03'$ W. on a random line bet. secs 5 and 6.  
Set temp  $\frac{1}{4}$  sec. cor.
- 79.96 Intersect N. l. dry of Pp. 172 l. N.  $89^{\circ}53'E$ . of the witness  
cor. to cor. of secs. 5, 6, 31 and 32; described in Exterior Book "P"  
thence from true point for cor. of secs. 5, 6, 31 and 32  
Draw  
S $0^{\circ}09'$ W. on a true line bet. secs 5 and 6. in bed of  
the Oraibi Wash.
- 6.50 Leave wash course S.W. enter level bottom  
land covered with sage and greasewood bush.  
2ft high.
- 39.96 Set an iron post 3ft. long 1 in. in diam, 26 ins.  
in the ground for  $\frac{1}{2}$  sec. cor. marked on brass  
cap. 436 on W half and 35 on E half.  
Dig pits 18x18x12 ins N. and S of post 3ft.  
dip, and raise a mound of earth  $3\frac{1}{2}$  ft;  
base  $\frac{1}{2}$  ft high. W. of cor.
- 57.96 Road to Oraibi Ariz bears N.E. and S.W.
- 76.00 Leave level adobe land bears N.W. and S.E.  
ascend N.W. slope over mountainous land bears  
N.W. and S.E.
- 79.96 The cor. of secs 5, 6, 7 and 8, herebefore described.  
Land level and mountainous  
Soil adobe and sandy 2<sup>nd</sup> and 3<sup>rd</sup> rate.  
No timber.  
Mountainous land. 3.96 chs.

January 11<sup>th</sup> 1909

## General Description.

BOOK 2591

This township contains nearly every variety of land from level to mountainous. The soil ranges from stony to sandy loam. The soil of the valley lands along the Craik Wash which flows through the north western portion of the tp. and in the Canyon is of an alluvial deposit and produces crops without irrigation. The soil of the remaining portion of the township can all be classed as 3<sup>rd</sup> and 4<sup>th</sup> rate is covered with an abundant growth of bunch grass affording good winter range for sheep and horses. The greater portion of the township consists of high mesa land and is covered with a scattering growth of pinion pine and cedar timber too small to be of any commercial value except for wood and posts.

The mesas are all underlain by extensive bodies of sand stone, which is unfit for building purposes on account of being too soft. Coal was found in sec. 18, and from surface indications there is no doubt but that extensive deposits underlie a large portion of the township.

The only water found in the township being a spring in sec. 2.

There is one Hopi Indian settler in sec. 4.

Sidney E. Bluth

U.S. Examiner of Surveys

Jan. 11 - 1909

NOTE Final Affidavits in book V of Subdivision.

U.S. EXAMINER OF SURVEYS  
FINAL OATHS OF DEPUTY SURVEYOR AND HIS ASSISTANTS.

LIST OF NAMES.

A list of the names of the individuals employed by Sidney E. Blout  
U.S. Examiner of Surveys  
~~United States Deputy Surveyor~~, to assist in running, measuring, and  
marking the lines and corners described in the foregoing field notes of the survey of the subdivision lines  
of Twp 29 N. R 17 E. of the Gila and Salt River Base and Meridian in the Territory of Arizona  
showing the respective capacities in which they acted:

- Jay E. Jellick David L. White Compassman
- Philip P. Weststrand Chainman.
- Fred L. Warner Moundman.
- Chas. L. Shumway Moundman.
- Lafayette Jennings Axman.
- Harvey Lake May Flagman.

FINAL OATH OF ASSISTANTS.

We hereby certify that we assisted Sidney E. Blout  
U.S. Examiner of Surveys  
~~United States Deputy Surveyor~~ in surveying all  
those parts or portions of the Subdivision of

Township 29 North, Range 17 East

of the Gila and  
Salt River Base and Meridian, Territory of Arizona, which are represented  
in the foregoing field notes as having been surveyed by him and under his direction; and that said survey  
has been in all respects, to the best of our knowledge and belief, well and faithfully <sup>executed</sup> surveyed, and the  
corner monuments established, according to the instructions furnished by the Commissioner of the  
General Land Office

See  
subdiv

- Compassman
- Chainman.
- Chainman.
- Moundman.
- Moundman.
- Axman.
- Flagman.

Subscribed and sworn to before me this \_\_\_\_\_  
day of \_\_\_\_\_, 190 \_\_\_\_\_



U.S. Examiner of Surveys

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BOOK 2591

EXAMINER OF SURVEYS  
FINAL OATH OF UNITED STATES ~~DEPUTY SURVEYOR.~~

See Subdivisional Book "V"

I, Sidney F. Blout, United States ~~Deputy Surveyor~~ Examiner of Surveys, do solemnly swear that, in pursuance of ~~Special Instructions~~ Special Instructions received from the Commissioner of the ~~United States General Land Office~~ General Land Office, bearing date of the 2nd day of Oct 1907 and the 15th day of May 1908, I have well, faithfully, and truly, in my own proper person, and in strict conformity with the instructions furnished by the Commissioner of the ~~United States General Land Office~~ General Land Office, the Manual of Surveying Instructions, and the laws of the United States, surveyed all those parts or portions of the Subdivision lines of

Township 29 North, Range 17 East

of the Gila and Salt River Base and Meridian, in the Territory of Arizona, which are represented in the foregoing field notes as having been surveyed by me, and under my direction; and I do further solemnly swear that all the corners of said survey have been established and perpetuated in strict accordance with the Manual of Surveying Instructions, and the special written instructions of the Commissioner of the ~~United States General Land Office~~ General Land Office and in the specific manner described in the field notes, and that the foregoing are the original field notes of such survey.

Subscribed by said Sidney F. Blout, and sworn to before me }  
this \_\_\_\_\_ day of \_\_\_\_\_, 1908 }  
United States Deputy Surveyor  
Examiner of Surveys



APPROVAL.

OFFICE OF THE UNITED STATES SURVEYOR GENERAL,

Phoenix, Arizona APR 25 1914

The foregoing field notes of the survey of the Subdivision lines of

Township 29 North, Range 17 East of the

Gila and Salt River Base and Meridian, Arizona

executed by Sidney F. Blout, U.S. Examiner of Surveys under Special Instructions from the Commissioner of the General Land Office dated October 2, 1907 and May 15, 1908, 1908, having been critically examined, and the necessary corrections and explanations made, the said field notes, and the surveys they describe, are hereby approved.

Frank P. Ingalls  
United States Surveyor General  
SURVEYOR GENERAL OF ARIZONA

I certify that the foregoing transcript of the field notes of the above described surveys in \_\_\_\_\_, has been correctly copied from the original notes on file in this office.

United States Surveyor General.